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Definitions

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A	Acceptable	Functional with no obvious signs of defect. It is carrying out the design purpose or intended operation of an item, part, system or component.
NP	Not Present	Item not present or not found.
NI	Not Inspected	Item was unable to be inspected for safety reasons or due to lack of power, inaccessible, or disconnected at time of inspection.
M	Marginal	Item is not fully functional and requires repair or servicing from a qualified (or licensed) professional. Item may be considered to present a minor safety hazard.
D	Defective	Item needs immediate repair or replacement. It is unable to perform its intended function, shows evidence of prior damage, or is considered to be a safety hazard.

General Information

Property Information

Property Address 1223 Any Street
City Anytown Ohio Zip 44000
Contact Name Mrs. John Smith
Phone 555-555-5555 Fax

Client Information

Client Name Mr. and Mrs. John Smith
Client Address 555 Their Street
City Anytown Ohio Zip 44000
Phone 555-555-5555 Fax
E-Mail No email available

Inspection Company

Inspector Name Fred Freer
Company Name Four Square Home Inspections
Address 6736 Eastgate Drive
City Mayfield Village Ohio 44143-2302 Zip
Phone 440-446-8000 Fax 440-446-8075
E-Mail fred@foursquarehomeinspections.com
File Number 2017-00-00
Amount Received HI = $575; Radon = $200;

Conditions

Others Present Selma Sellsum (Realtor); Property Occupied Occupied
Year Built: 2006 Entrance Faces North
Base Square Footage: 2,711
Inspection Date 00/00/2017
Start Time 0800 End Time 1333
Electric On: ◉ Yes ○ No ○ Not Applicable
Natural Gas/Oil On: ◉ Yes ○ No ○ Not Applicable
Water On: ◉ Yes ○ No ○ Not Applicable

General Information (Continued)

☒ ☐ ☐ ☐ ☐ Home is occupied? ◉ Yes ○ No Home is occupied and personal possessions are present. Occupied homes and homes that have been regularly and continuously conditioned (heated and cooled), with utilities turned on and heating and cooling equipment (HVAC) operative, almost universally have a far more healthy fungal ecology (lack of mold or fungal growth) than homes without utilities and the beneficial effect of heating and cooling (largely due to air movement and dehumidification).

Temperature 86 degrees
Weather Cloudy, Sunny Soil Conditions Damp
Space Below Grade Unfinished basement, Finished room(s), Bathroom
Building Type Single family Garage Attached
Sewage Disposal City How Verified Visual observation
Water Source City How Verified Visual observation
Additions/Modifications Water heater, deck; , No other recent modifications that would require require a permit or be warrantable were apparent
Permits Obtained Unknown, Strongly suggest prospective buyer secure copies of all permits, warranty papers and names of contractors for all work performed (permit copies from Seller or from City Hall) How Verified Not verified

How to Read This Report

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A NP NI M D

1. How to read and understand this report.

   Four Square Home Inspections uses a checklist system, with ratings attached to each of the 300 to 500 or more items evaluated in a typical home inspection. These ratings are supplemented by annotated digital pictures (which are a integral part of this report) which record and identify significant areas of concern about the inspected property.

   We use the following rating system as explained in the definitions:

   "A" = Acceptable: a rating indicating that it does not presently require any attention or maintenance effort at the time of the inspection.
   "NP" = Not Present: a rating indicating that, in the inspector's judgment, the item was not present or identifiable at the time of the inspection.

How to Read This Report (Continued)

"NI" = Not Inspected: a rating typically indicating that the item was not accessible or visible at the time of the inspection (e.g., behind furniture, snow covered, visible only with disassembly that is beyond the scope of a home inspection)
"M" = Marginal: a rating indicating that the item is not fully functional, requires service or repair or near-term replacement.
"D" = Defective: a rating indicating the need for immediate repair or replacement because the item is no longer able to perform its intended function as designed and installed.

As a general convention, items that are defective are identified in red while marginal items are identified in magenta. Items that are informational in nature are identified in green or blue. Items related to energy conservation are identified in green.

The home inspection is intended to assess and report on the general condition of the home, building or property at the time of the inspection. This assessment is performed in full accord with the Standards and Practices of the American Society of Home Inspectors (ASHI) and the National Association of Home Inspectors (NAHI): I inspect to whichever is the higher standard. These Standards of Practice and the accompanying Code of Ethics for each association are available to you upon request.

Inspections are typically conducted on a sampling basis. That is, we do not test every duplex outlet in every room. We will test one or two outlets in each room when they are accessible. However, we will test every accessible GFCI (Ground Fault Circuit Interrupted) outlet. We will examine and operate at least one window in every room but not every window will be tested (although we will examine every window for glass and/or seal breakage or defective sash cords where applicable). We will open a representative number of kitchen cupboards and drawers but will not open or operate every drawer and cupboard door.

Inspections are generalist inspections. Home inspectors are not specialists in every field and discipline and therefore, recommendations may be made to consult a specialist when a more exacting analysis or understanding of the item is required (e.g., a chimney analysis by a CSIA qualified technician, a furnace or air conditioning evaluation by a licensed HVAC specialist, an evaluation of the physical structure by a licensed structural engineer).

Four Square Home Inspections, a Four Square Restorations, Inc. Company, is a commercial and residential remodeling and restoration contractor. Under the terms of our professional organization memberships, and in full compliance with applicable Codes of Ethics, Four Square Restorations, Inc. will not derive any monetary benefit, nor perform remediation or corrective work identified through an inspection, performed by Four Square Home Inspections. We repair homes and we inspect homes. But, we do not inspect what we have repaired and we do not repair what we have inspected.

This house has, as all houses have, a number of observable assets as well as items of concern. Items of particular concern in the opinion of the inspector, are highlighted in the following defect summary. If, however, an in-depth understanding of the home's condition is desired, a complete reading of this report will be required. The length of the list of concerns will always be greater than the list of identified assets and is not intended to suggest that the home has not been well-maintained or is not a property of value. The assets are not highlighted in this report for this evaluation is not intended to be a marketing report but rather a document that provides an assessment of a home's suitability for both occupancy and ownership.

How to Read This Report (Continued)

All directions given in this report are to be viewed from the front of the home. This report is not intended to be exhaustive but rather to highlight those issues that would be of principal interest to a prospective buyer or seller of the home.

Items of concern may require further evaluation by qualified specialists (e.g., licensed electricians, licensed plumbers, licensed heating, ventilating and air conditioning (HVAC) trade's people, masons, roofing contractors and others).

Where special attention to a particular detail is suggested, it will be called forth in the report. When and where deemed useful, discrete, self-adhesive colored "dots" or stickers have been applied to alert interested parties as to the identified location of a particular issue or concern and are so noted in the report.

The purpose of this inspection and report is not to assure code compliance. Building codes are under constant review and updating as issued by The International Code Council and as adopted by municipal jurisdictions. Building codes are typically updated every three years.

Many items identified in this report are "grandfathered" by municipal building officials. That is, items built at an earlier time and not now in conformance with contemporary codes are evaluated under the code at the time they they were built or installed. Some exceptions, however exist. The most obvious and typical example would be for Ground Fault Circuit Interrupting (GFCI) outlets. Most code officials will require the updating of a home to deploy GFCI units in appropriate locations for the immediate safety of occupants.

This inspection report is designed to identify items and systems in the home that are marginally able or completely unable to perform their intended functions. We make no effort to estimate cost of repairs and such repair costs are best secured from qualified (i.e., licensed or certified as appropriate) contractors or specialists. We also recommend obtaining as least two quotes from reputable contractors for comparative purposes.

In closing, it is important to note that this and, indeed, any Home Inspection is not a "Code" inspection. Code inspections are performed by municipal inspectors certified by the International Code Council in their respective trade disciplines (e.g., electric, plumbing, HVAC and general construction). Code inspections are minimalist inspections designed to assure code compliance (a minimum standard to be sure). Typical on-sight code inspections require minutes to perhaps an hour depending on the scope of the inspection. A typical Four Square Home Inspection requires, on average about four hours. And, during a typical home inspection, we will evaluate and document some 400 to 600 building components, systems and elements (all of which will of course appear in the home inspection report). We will certainly investigate and evaluate all of the elements embedded in a "Code" inspection but with a higher degree of detail. And, we inspect and evaluate so much more: everything in the home from the foundation to the top of the chimney, every system and most components in between.

Environmental Issues

Asbestos:

Most homes built after 1978, are generally assumed to be free of asbestos, lead in the paint and many other common environmental contaminants. However, as a courtesy to our clients, we may include in the reference section, well documented, and therefore public, information about several environmental contaminants that could be of concern to you and your family, some of which we do not have the expertise or authority to evaluate, such as methane, formaldehyde, bacterial organisms and electromagnetic radiation, to name some of the more commonplace ones. We do, however, have the licensure, knowledge and training to measure and or evaluate radon, mold, lead in the plumbing or paint and asbestos to name a few. Nevertheless, we will attempt to alert you to any suspicious substances or conditions that would warrant evaluation by a specialist. However, health and safety, and environmental hygiene are deeply personal responsibilities, and you, as the client, should make sure that you are familiar with any contaminant that could affect your home environment. You can learn more about contaminants that can affect you home from a booklet published by The Environmental Protection Agency [EPA], which can be read online at http://www.epa.gov/iaq/pubs/index.html.

Our experience:

We are trained, licensed and equipped to evaluate certain environmental hazards and can do so for you under separate contracts should you so choose. Mold, radon, asbestos and lead are several of the common environmental and human health hazards that we can evaluate for you. These hazards are not detailed in the generalist report although they may be cited as possibly being present. The final determination in terms of both qualification and quantification of these hazards would require additional testing, measurement, analysis and/or laboratory evaluation to ascertain the viability of these environmental hazards.

Fungal growths (mold):

Molds are found everywhere inside and outside, and can grow on almost any substance when moisture is present. Molds reproduce by spores, which can be carried by air currents. When these spores land on a moist surface that is suitable for life, they begin to grow. Mold is normally found indoors at levels that do not affect most healthy individuals.
Because common building materials are capable of sustaining mold growth, and mold spores are ubiquitous, mold growth in an indoor environment is typically related to water or moisture indoors. Mold growth may also be caused by incomplete drying of flooring materials such as concrete. Flooding, leaky roofs, building maintenance problems, or indoor plumbing problems can lead to mold growth on the interior of the home.
For significant mold growth to occur, there must be a source of water (which could be invisible humidity), a source of food, and a substrate capable of sustaining growth. Common building materials, such as plywood, drywall, furring strips, carpets, and carpet padding are food for molds. In carpet, invisible dust and cellulose are the food sources as are dust mites. After a single incident of water damage occurs in a building, molds grow inside walls and then become dormant until a subsequent incident of high humidity; this illustrates how mold can appear to be a sudden problem, long after a previous flood or water incident that did not produce such a problem. The right conditions reactivate mold. Studies also show that mycotoxin levels are perceptibly higher in buildings that have once had a water incident.

Spores need three or four things to grow into mold: 1) Nutrients: Organic or carbon-based materials and particularly those that contain cellulose as a common food for spores in an indoor environment.; 2) Moisture: Moisture is required to begin the decaying process caused by the mold. 3) Time: Mold growth begins between 24 hours and 10 days from the provision of the growing conditions. There is no known way to date mold. 4) Temperature: a warm temperature (70-90 degrees) encourages fungal growth while colder temperatures may slow the growth process.

Mold colonies can and do grow inside building structures. The main problem with the presence of mold in buildings is the inhalation of mycotoxins. Molds may produce an identifiable smell. Growth is fostered by moisture. After a flood or major leak, mycotoxin levels are higher in the building even after it has dried out. Of course, since mold is a wood destroying organism, mold growth may ultimately compromise the building element or structure.

Food sources for molds in buildings include cellulose-based materials, such as wood, cardboard, and the paper facing on both sides of drywall, and all other kinds of organic matter, such as soap, fabrics, and dust containing skin cells. If a house has mold, the moisture may be from the basement or crawl space, a leaking roof, or a leak in plumbing pipes behind the walls. People residing in a house also contribute moisture through normal breathing and perspiration. Insufficient ventilation can further enable moisture build-up. Visible mold colonies may form where ventilation is poorest, and on perimeter walls, because they are coolest, thus closest to the dew point.

If there are mold problems in a house only during certain times of the year, then it is probably either too air-tight, or too drafty. Mold

Environmental Issues (Continued)

problems occur in airtight homes more frequently in the warmer months (when humidity reaches high levels inside the house, and moisture is trapped), and occur in drafty homes more frequently in the colder months (when warm air escapes from the living area into unconditioned space, and condenses). If a house is artificially humidified during the winter, this can create conditions favorable to mold. Moving air may prevent mold from growing since it has the same desiccating effect as lowering humidity. Molds grow best in warm temperatures, 77 to 86 degrees Fahrenheit, though some growth may occur anywhere between 32 and 95 degrees. Removing one of the three requirements for mold reduces or eliminates the new growth of mold. These three requirements are 1) Moisture, 2) Food source for the mold spores (dust, dander, etc.), and 3) warmth (mold generally does not grow in cold environments).

HVAC systems can create all three requirements for significant mold growth. The A/C system creates a difference in temperature that allows/causes condensation to occur. The high rate of dusty air movement through an HVAC system may create ample sources of food for the mold. And finally, since the A/C system is not always running - the ability for warm conditions to exist on a regular basis allows for the final component for active mold growth. Because the HVAC system circulates air contaminated with mold spores and sometimes toxins, it is vital to prevent any three of the environments required for mold growth. A) Highly effective return air filtration systems are available that eliminate up to 99.9% of dust accumulation (as compared to 5% elimination by typical HVAC air filters). These newer filtration systems usually require modification to existing HVAC systems to allow for the larger size of electrostatic 99.9% filters. However, thorough cleaning of the HVAC system is required before usage of high efficiency filtration systems will help. Once mold is established, the mold growth and dust accumulation must be removed. B) Insulation of supply air ducts helps to reduce or eliminate the condensation that ultimately creates the moisture required for mold growth. This insulation should be placed externally on the air ducts, because internal insulation provides a dust capture and breeding ground for mold.

Wells and septic systems:

In-ground wells are designed to provide suitable quantities and a quality of potable drinking water for household residents. Wells should always be tested for pressure and flow to assure that the well has the appropriate capacity to serve the homes' occupants. However, in less urban settings, wells are often associated with septic systems. These septic systems and other area-wide site hazards (e.g., local oil and gas wells, fracking activities, illegal dumping activities) are subject to contamination. In addition to flow and pressure, every well should be checked for E-Coli and Total Coliform to assure that the water is safe to drink (potable). Of course, well water can also be checked for other environmental contaminants including but not limited to benzene, toluene, gasoline, kerosene and heavy metals to name a few. Septic systems can be inspected but only when the home has been occupied and the septic system in use for 30 or more days (county requirements can vary). Some counties provide no-charge inspections while others requires private inspectors.

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	A	NP	NI	M	D	
1.	☐	☐	☒	☐	☐	Lead presence suspected No tests for lead were performed, Home was built post 1978 and lead is not suspected
2.	☐	☐	☒	☐	☐	Indoor Air Quality (Particulates): Indoor air particulates were not sampled and evaluated as a part of this inspection.
3.	☐	☐	☒	☐	☐	Indoor Air Quality (TVOC's, TMVOC's): Indoor air quality (TVOC's and TMVOC's) were not sampled as a part of this inspection
4.	☐	☐	☒	☐	☐	Asbestos presence suspected Asbestos testing was not performed., No asbestos is suspected. Although, under the EPA's Asbestos Hazard

Environmental Issues (Continued)

Asbestos presence suspected (continued)
Emergency Response Act (AHERA), suspect material must be assumed to be asbestos-containing under laboratory testing proves other wise.

5. ☒ ☐ ☐ ☐ ☐ Odors present No distinctive concerning odors were identified
6. ☐ ☐ ☒ ☐ ☐ WDO evidence(Mold-like growth) The buyer declined to have Mold (fungal growth) sampling performed as a part of this inspection.
7. ☐ ☐ ☒ ☐ ☐ WDI evidence (Wood Destroying Insects) The buyer declined to have a Wood Destroying Insect (WDI) inspection performed as a part of this home inspection.
8. ☒ ☐ ☐ ☐ ☐ Pests/Rodent evidence No pest evidence was identified
9. ☒ ☐ ☐ ☐ ☐ Radon tested Radon testing is being conducted as a part of this home inspection and the results will be sent under separate US Mail (and/or email) cover (or may be contained in section five of the larger General Home Inspection report when the Radon Telemonitor has been placed in the home prior to the general home inspection and retrieved at the time of the home inspection). A radon mitigation system has been installed and is operational. No evidence of post-installation testing was available. Mitigation contractors typically take a "grab sample" (a very short term test that is representative of radon presence at the time of the test but may not be representative of the longer term exposure conditions. Please see the EPA's web site for guidance (www.epa.gov/radon) for additional information about Radon. If you wish, I can also send additional information at your request. The EPA recommends that your home be tested every two years when a mitigation system is installed and anytime after basement/crawl space remodeling has been performed.

10. ☐ ☐ ☒ ☐ ☐ Soil
11. ☐ ☐ ☒ ☐ ☐ Water quality Water is supplied by City system and was not tested
12. ☐ ☒ ☐ ☐ ☐ Well system
13. ☐ ☒ ☐ ☐ ☐ Septic (Household Sewage Treatment System)
14. ☒ ☐ ☐ ☐ ☐ On-site environmental hazards No on-site environmental hazards were observed
15. ☒ ☐ ☐ ☐ ☐ Adjacent site environmental hazards No adjacent site environmental hazards were observed

Lots and Grounds

Sprinkler systems, if present, are not inspected as a part of this inspection

Deck construction:

Decks built prior to 2004 are likely constructed from CCA (Chromated Copper Arsenate) treated lumber. The use of CCA in residential applications was banned after 12/31/2003. CCA treated wood chemicals were found to dissolve in water and leach out of the wood, causing potential harm to the environment as well as to individuals in regular and continuing contact. Chromated copper arsenate (CCA) is a chemical wood preservative containing chromium, copper and arsenic. CCA is used in pressure treated wood to protect wood from rotting due to insects and microbial agents. EPA has classified CCA as a restricted use product, for use only by certified pesticide applicators.

CCA has been used to pressure treat lumber since the 1940s. Since the 1970s, the majority of the wood used in outdoor residential settings has been CCA-treated wood. Pressure treated wood containing CCA is no longer being produced for use in most residential settings, including decks and play sets.

Alternative products are available that do not contain arsenic (e.g., ACQ, MCQ, Copper Azole and others). The use in residential applications as banned after 12/31/2003. CCA treated wood chemicals were found to dissolve in water and leach out of the wood, causing potential harm to the surrounding environment,

Trees and shrubs:

Trees and shrubs too close to the house can threaten foundations, prevent appropriate drying, create conditions for water entry to the foundational structure of the home and detract from the security of the home. Trees with branches overhanging the home almost certainly have tree roots invading (or threatening) the foundation.

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	A	NP	NI	M	D	
1.	☒	☐	☐	☐	☐	Driveway/Apron: Concrete drive and apron
2.	☒	☐	☐	☐	☐	Public Walks Concrete
3.	☒	☐	☐	☐	☐	Private Walks Front entry, Concrete
4.	☒	☐	☐	☐	☐	Private Walks Rear entry walk, Enclosed three season
5.	☒	☐	☐	☐	☐	Steps/Stoops: Front entry, Concrete
6.	☒	☐	☐	☐	☐	Steps/Stoops: Garage to first floor entry steps, Wood - painted
7.	☐	☐	☐	☒	☐	Deck: Treated wood (likely copper chromated arsenate (also known as Copper Chromated Arsenate) a product that was permitted for outdoor structures and decks until 2004. Manufacturers submitted requests to the EPA to voluntarily cancel most residential uses effective December 31, 2003. Supply chains likely contained CCA treated products for more than several of the subsequent years following 2004. Deck ledger boards are a critical component in the attachment of this deck to the home. Failure of the ledger translates to failure of the entire deck. Proper attachment of this

Lots and Grounds (Continued)

Deck: (continued)

board to the house with proper fasteners at the proper intervals is required to assure deck safety. A thorough inspection of this ledger and its points of attachment was not possible in this inspection. You are cautioned to watch for any signs of movement of the deck along the house wall, any signs of deck settlement along the house wall or any signs of deck flexing near the house and if discovered, have a qualified decking contractor thoroughly examine the ledger and deck structure. Deck ledger boards and other points of mechanical connection to the structure of the house rely on a positive, direct attachment without other compressible materials in between the two structural elements (ledger and house foundation). Attachment through the siding is an improper attachment method and risks a long-term compromise of the integrity of the larger deck structure and its connection to the house. We recommend monitoring the deck for changes in elevation, pitch or attachment to the house. If changes occur, we recommend that you contact a qualified licensed general contractor decking contractor for an investigation and repair recommendation. Ledger flashing not present. Ledger flashing is designed to carry gravity-fed water out and away from rear-face of ledger board. Failure to properly divert this water may lead to premature failure of the ledger, deterioration of the ledger fasteners and possible fungal growth and structural decay of the band joist and/or sill plate and associated components. No "Hurricane Ties" have been installed as required. Where posts and beam or girder construction is used to support floor framing, positive connections shall be provided to ensure against uplift and lateral displacement. Suggest a qualified deck contractor install these required components. The ledger, as noted, is a critical component in the support of the deck and it must be properly fastened to the house structure. The type and location of fasteners are essential to ensure sound structural attachment of the deck to the home. Bolts or lag screws of ½-inch diameter are the usual minimum size. Hot-dipped galvanized is the usual minimum coating material for all hardware including nails, screws and joist hangers. Stainless steel may be required in severe-exposure areas such as near salt water. The spacing of fasteners depends on the length of the deck joists, whether attachment is to a dimension-lumber band or to a rim board, and on the fastener type (bolt or lag screw). Typical fastener spacing for deck ledgers attached to engineered-rim boards is between 9-12 inches on center and between 11-24 inches for deck ledgers attached to dimension-lumber band boards. The more distant spacing applies to shorter deck joists and the closer spacing to longer deck joists. Lag screws need closer spacing than bolts. The fasteners used for this deck installation do not comport with contemporary safety requirements. See the attached diagrams for additional

Lots and Grounds (Continued)

Deck: (continued)

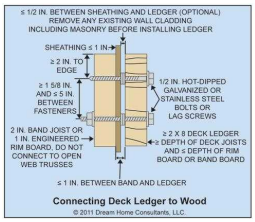
detail. Contemporary deck construction requirements require two (or four) alternative lateral force connectors to connect the deck structure to the house structure to prevent lateral loading of the deck and rotation of the ledger. Simpson Strong-Tie makes two devices that are approved for new installations and retrofit applications. The DTT2Z is a deck tension tie that, when used in a pair, meets the 3,000 pound lateral load specification. The second alternative where four units would be required is identified as the DTT1Z. Two or four (depending on connector) connectors should be retrofitted to this deck for safety. As an alternative, a letter signed and stamped by a licensed structural engineer certifying the structural integrity of this deck, the deck ledger and deck ledger connection may provide a measure of legal protection in the event of a deck failure. A qualified deck contractor will be familiar with the American Wood Council's Design for Code Acceptance DCA-6 document which, along with the International Residence Code, details installation requirements and specifications for these lateral load connectors. Sample locations shown only. The American Wood Council (see http://www.awc.org/codes-standards/publications/dca6) has long published. and revises as appropriate, the document entitled DCA-6 and known as the "Prescriptive Residential Deck Construction Guide." While this guide is technical in nature, by design, it is also a ready reference for a homeowner wishing to better understand how their deck should be constructed. You may also wish to consult Simpson Strong-Tie (https://www.strongtie.com/resources/literature/deck-connection-fastenin for supplemental information concerning the hardware used for proper deck construction. However, with all of this said, this deck does not, at the time of the inspection, evidence structurally shifting or ledger detachment. Nonetheless, the long-term viability, performance and safety of this deck structure may require repairs as outlined above. I suggest monitoring the deck at the house side for evidence of change. If such change occurs, I recommend that you consult a licensed structural engineer for an evaluation.

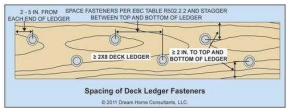


Lots and Grounds (Continued)

Deck: (continued)







8. ☒ ☐ ☐ ☐ ☐ Porch: Front entry
9. ☐ ☒ ☐ ☐ ☐ Patio:
10. ☐ ☒ ☐ ☐ ☐ Balcony:
11. ☒ ☐ ☐ ☐ ☐ Grading: The grade is neutral in front and falls away from home on the rear elevation (desirable).
12. ☒ ☐ ☐ ☐ ☐ Landscaping (soil) at perimeter walls: Foundation is generally clear of vegetation [minor plantings]
13. ☐ ☒ ☐ ☐ ☐ Swale:
14. ☐ ☐ ☐ ☒ ☐ Vegetation: Coniferous trees, Deciduous trees, Shrubs, Bushes and large plantings Trees planted too close to structure, removal may be required

15. ☐ ☐ ☐ ☒ ☐ Window Wells: No window well(s) present Suggest installing window well surround(s) to protect window framing from surrounding earth.

16. ☐ ☒ ☐ ☐ ☐ Retaining Walls:
17. ☐ ☒ ☐ ☐ ☐ Basement Stairwell:
18. ☐ ☒ ☐ ☐ ☐ Basement Stairwell Drain:

Lots and Grounds (Continued)

19. ☒ ☐ ☐ ☐ ☐ Exterior Surface Drain: 16" surface drain [crock] in yard Surface drains must be kept clear of debris to permit proper water flow and drain performance, Surface drain: underground piping cannot be judged as to adequacy, flow or proper connection

20. ☒ ☐ ☐ ☐ ☐ Fences: Aluminum privacy and security fence
21. ☐ ☒ ☐ ☐ ☐ Lawn Sprinklers (Irrigation System):
22. Irrigation System Backflow Prevention Present? ○ Yes ◉ No No irrigation system is present
23. ☐ ☐ ☒ ☐ ☐ Yard and lot play equipment or structures ☒ Fireplaces/BBQ ☐ Hot tubs ☐ Wood racks ☒ Play structures ☐ Swimming pools These items are not inspected for safety or performance. However, notes in this report may reflect casual and visual observations about the item. Buyer should assume responsibility for inspecting, or having inspected, item before use to assure safety and functionality.

24. ☐ ☐ ☒ ☐ ☐ Additional lot and yard features ☐ Arbors ☐ Firepits ☐ Gazebos ☐ Pergolas ☐ Water features These items are not inspected for safety or performance. However, notes in this report may reflect casual and visual observations about the item. Buyer should assume responsibility for inspecting, or having inspected, item before use to assure safety and functionality.
25. ☐ ☐ ☒ ☐ ☐ Additional lot and yard features: ☐ Emergency back-up generator ☐ Portable (non-permanent storage sheds These items are not inspected for safety or performance. However, notes in this report may reflect casual and visual observations about the item. Buyer should assume responsibility for inspecting, or having inspected, item before use to assure safety and functionality.
26. ☐ ☐ ☒ ☐ ☐ Additional lot and yard features: ☐ Pet Containment Systems ☐ Irrigation systems and components
27. Other Observations:

Exterior Surface and Components

Homes should sit on a property such that ground water is directed away from the house. Landscaping should be installed away from the house structure so that appropriate air drying of the foundation takes place and so that the foundation is not encumbered by plants and landscaping materials within the lower 18". That is, the foundation should be fully exposed for 18" or so before the siding begins to prevent moisture saturation of the siding and to discourage wood destroying insect entry.

Expansive (clay) soils:

Expansive soils contain minerals such as smectite clays that are capable of absorbing water. When they absorb water they increase in volume. The more water they absorb the more their volume increases. Expansions of ten percent or more are not uncommon. This change in volume can exert enough force on a building or other structure to cause damage.

Cracked foundations, floors and basement walls are typical types of damage done by swelling soils. Damage to the upper floors of the building can occur when motion in the structure is significant.

Expansive soils will also shrink when they dry out. This shrinkage can remove support from buildings or other structures and result in damaging subsidence. Fissures in the soil can also develop. These fissures can facilitate the deep penetration of water when moist conditions or runoff occurs. This produces a cycle of shrinkage and swelling that places repetitive stress on structures.

The home inspector is not required to move personal items, panels, furniture, equipment, plant life, soil, snow, ice or debris that obstructs access or visibility.

LEAD PAINT INFORMATION

If you are purchasing a home that was built before 1978, the home stands the risk of having lead based paint present. Under the EPA ruling 40 CFR Part 745 effective April 22, 2010 , any renovation, remodeling or painting must be done by a certified contractor following lead-safe practices and this could lead to higher prices than similar contracts performed on homes that do not have lead based paint present. If you are considering any renovations, now or in the future, we recommend having the home evaluated by a certified, state licensed lead risk assessor.

For more information call the Ohio Department of Health lead program at 614-728-6714 and visit the following web sites: www.odh.ohio.gov, www.leadfreekids.org, www.epa.gov/lead

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A NP NI M D

Front elevation Exterior Surface

Exterior Surface and Components (Continued)

1. ☒ ☐ ☐ ☐ ☐ Type: Adhered Concrete Masonry Veneer, Vinyl siding - Water Resistive Barrier (WRB) present Adhered Concrete Masonry Veneer (ACMV) is present on this home. One or more portions of the exterior walls have been clad with a faux stone masonry veneer (sometimes called "stick-on stone" or "peel and stick stone"). This system is not inherently defective but may be subject to certain future failures due to water intrusion and the inability of the wall system to dispense the water due to a lack of a drainage plane system. This wall system does not have a visible drainage system (sometimes called a rain screen). The drainage system, when present, is installed behind the adhered masonry. Drainage systems (rain screens) cannot be installed after the installation is complete (after the fact). Drainage systems vent accumulated water through weep holes, weep ropes or weep screed installed at the base of the wall and above fenestration (windows and doors) penetrations. The visible absence of these weep devices suggests that no drainage system has been installed. Unfortunately, this is all too common. The Masonry Veneer Manufacturer's Association recommends in their installation manual (copy available upon request) a drainage mat (also called a drainage plane or rain screen) for water management behind the adhered masonry as follows:. " Rainscreens are optional building techniques that are used to improve the drainage of incidental water behind the cladding and reduce drying time. Rainscreen products (such as drainage mats or formed polymer sheeting) or construction techniques (such as strapping or furring) that create a capillary break/air space between the cladding and the primary water resistive barrier can be effectively incorporated into AMSV applications. Refer to the manufacturer's recommendation for rainscreen / drainage system applications with adhered manufactured stone veneer wall systems. Building codes may allow a single layer of a water resistive barrier when a drainage space is incorporated in the wall system (i.e. rainscreen). Requirements for rainscreens vary by region. Verify local jurisdictional requirements regarding the use and application of rainscreens."

Exterior Surface and Components (Continued)

Type: (continued)

In summary, you are cautioned that this installation is not defective on its face but it could have been improved to provide for water management when it was first installed. This cladding system (adhered masonry) may provide years of trouble and water free service. Water entry typically occurs through failure in mortar joints between adhered stones, at points of penetration through the cladding (as for windows and doors) and with failed sill flashing or joints, Without the drainage system (drainage plane), flashing and weep holes (or screed/ropes), moisture could be trapped behind the (ACMV) adhered masonry and will find its way into the inner wall building materials possibly resulting in unseen structural damage.

Left side elevation Exterior Surface

2. ☒ ☐ ☐ ☐ ☐ Type: Vinyl siding - Water Resistive Barrier (WRB) present

Rear elevation Exterior Surface

3. ☒ ☐ ☐ ☐ ☐ Type: Vinyl siding - Water Resistive Barrier (WRB) present

Right side elevation Exterior Surface

4. ☒ ☐ ☐ ☐ ☐ Type: Vinyl siding - Water Resistive Barrier (WRB) present
5. ☐ ☐ ☐ ☒ ☐ Trim: Aluminum coil wrap Evidence of water entry within or behind trim. Evidence of ferrous metal (rust stains). Suggest a qualified siding contractor investigate source of water entry and estimate repairs.


6. ☒ ☐ ☐ ☐ ☐ Fascia: Aluminum coil wrap
7. ☐ ☐ ☐ ☒ ☐ Flashings: Window and door head flashing Head flashings are not present at window and door penetrations through the exterior siding (sample locations shown only). Head flashings are used to direct water away from openings such as windows and doors. Head flashings should be installed with a positive slope to the exterior. The cladding above the head flashing should never rest on the flashing as this leads to problems with the flashing being bent in the wrong direction and sloped back towards the building. Head flashings

Exterior Surface and Components (Continued)

Flashings: (continued)
should extend laterally past the opening on either side. This flashing is particularly important when the window or door is not protected by an overhead roof, soffit or cantilevered projection. Sample locations shown only. While head flashings can be installed after the fact (with siding removal), it is generally not recommended unless visual or other evidence suggests water entry to the interior of the home around the window/door.



8. ☒ ☐ ☐ ☐ ☐ Soffits: 12" vinyl soffits with periodic vents
9. ☒ ☐ ☐ ☐ ☐ Door Bell: Hard wired
10. ☒ Front door ☐ Side door ☐ Rear door
11. ☒ ☐ ☐ ☐ ☐ Entry Doors: Fiberglass entry door with lite and side lite
12. ☒ ☐ ☐ ☐ ☐ Patio Door: Vinyl sliding door with lite and fixed sidelite
13. ☐ ☒ ☐ ☐ ☐ Side Door:
14. ☐ ☒ ☐ ☐ ☐ Rear Door:
15. ☒ ☐ ☐ ☐ ☐ Windows: Vinyl casement, Fixed thermopane, Clerestory thermopane
16. ☐ ☒ ☐ ☐ ☐ Storm Windows:
17. ☒ ☐ ☐ ☐ ☐ Window Screens: Fiberglass in vinyl frames, Interior screens Some windows do not have screens
18. ☒ ☐ ☐ ☐ ☐ Basement Windows: Glass block with and/or without vents
19. ☒ ☐ ☐ ☐ ☐ Exterior Lighting: Surface mount
20. Exterior Lighting:
    ☒ Test ☐ Left Side ☐ Right Side ☒ Rear ☒ Garage
21. ☒ ☐ ☐ ☐ ☐ Exterior Electric Outlets: 120 VAC GFCI Protected outlet, Approved cover and weather protected
22. Exterior Outlet Locations ☒ Test ☐ Left Side ☐ Right Side ☒ Rear ☒ Garage
23. ☒ ☐ ☐ ☐ ☐ Hose Bibs: Freezeproof sillcock with vacuum breaker
24. Hose Bib Locations ☐ Front ☐ Left Side ☐ Right Side ☒ Rear ☒ Garage
25. ☒ ☐ ☐ ☐ ☐ Gas Meter: Right side of house Gas meter requires 3' of clear space in front of meter for emergency shutoff access; area should be kept clear

Exterior Surface and Components (Continued)

26. ☒ ☐ ☐ ☐ ☐ Main Gas Valve: Located at gas meter Green arrow identifies natural gas shut-off (requires a substantial pipe or Crescent wrench)

27. Other Observations:

Roof System

A lack of maintenance is one of the leading causes of roof deterioration. Most people tend to overlook the maintenance of their roofs when they find leaks, preferring to simply fix the leak instead of finding the problem. Most causes of deterioration can be attributed to problems that can be prevented through the proper design/inspection of the roof. Many leaky areas can actually be attributed to the flashing, whether it was installed incorrectly, poor construction was a factor, or because age has caused various contractions and or expansions to loosen the seals or separate the flashing from their base flashing. Another common cause of roof deterioration is the atmosphere surrounding your home. Organic-based roofing materials are more susceptible to the weather than inorganic, while some roofing materials are effected largely by air pollutants and industrial or salt-laden atmospheres. Another factor that is involved is the overall weather conditions. It's important after storms to inspect for damage. It's also a good chance to see if there are any building deficiencies when it comes to proper drainage of your roof. Any standing pools of water are clues as to where the deficiencies are, and what type of action should be taken to prevent any further damage because of standing pools of water. Seemingly harmless things can cause sections to deteriorate as well, such as seeds or twigs on or around it. Some seedpods release toxic substances that can eat away at your roof, leaving pocket marks, while twigs can poke through certain areas, i. e. shingles, causing further deterioration and leaks, as well as causing your pocket to suffer for having to pay the repairs. Nobody really looks forward to replacing their roof because of some twigs that would have taken the most minimal effort to remove. Improper perimeter detail can also become problematic because of the potential for strong winds to cause fasteners to loosen and break the adhesion, not to mention the added duress put on the roof structures. Strong winds also bring a lot of potential harmful debris, yet another good reason to check your roofing system after storms of any kind, when you're able.

Inspection of roof systems may be limited by factors including roof height, roof design, roof composition, weather, potential for damage to the roofing system and risk to the inspector among other factors. A complete and thorough inspection of the roof may therefore be limited by these and other factors that must be judged by the inspector at the time of the inspection.

Over the years many roofs will experience some sort of wetness. Typical roofing felt paper sometimes isn't enough, especially for problem areas. Since 2006, the Residence Code of Ohio (the governing construction code hereinafter called the "Code") has mandated the installation of Ice and Water shield, but also known as Ice Guard, WinterGuard, Weatherguard or Weathershield. Ice and water shield is a rubberized material that comes in a roll just like felt paper. Typical places for ice and water shield applications are along eaves and in valleys. Quality roofers will use it around vents, chimneys and other roof penetrations as extra protection. Please know, however, that we cannot tell just which manufacturer made the Ice Guard product installed on your roof. Therefore, we cannot know what or how the manufacturer has instructed the installer to install their Ice Guard product.

Typically one side of your water shield roll is extremely sticky and will adhere itself to the roof sheathing. The water shield is self-sealing and makes an excellent barrier to water entry through and under the roof, particularly under conditions of ice damming in the winter season.

The Code is very specific about how high up the roof the Ice Guard is to be installed (2" beyond the face of the interior wall) but the Code is silent on how it is to be terminated at the eave edge. It is important to remember that the Code is a minimum standard and that a contractor or roofing installer is always at liberty to install beyond the Code. Best practices and most manufacturer installation instructions dictate that the eave edge of the Ice Guard is to be installed under the drip edge and wrapped over the face of the fascia (gutter board) to be installed behind the gutter (requiring loosening or removal of the gutter).

From a practical and functional perspective, the Ice Guard is virtually useless unless it is installed under the drip edge and over the fascia board behind the gutter because ice dams will elevate from the gutter upward - under the Ice Guard (if it isn't wrapped to the fascia) and under the shingles - and likely water-saturating the sheathing and underlying structure.

Roof System (Continued)

We inspect to the higher standard (Ice Guard wrapped over fascia and behind the gutter) and expect quality roofers to install Ice Guard in a manner that best protects the home. We will cite the absence or presence of Ice Guard and the manner in which it has been installed.

Flashings are typically metal and are used to transition and water-protect one area from another (think of a roof and sidewall, a chimney and a roof, a window or door and sidewall or a roof and a penetration like a skylight or plumbing vent stack). All of these have one thing in common: the need to isolate the two differing materials and prevent water entry: that, in a nutshell, is the purpose of a flashing system. Flashings are critical components and must be inspected carefully for proper installation and maintenance. However, sometimes these flashings cannot be properly or fully inspected due to roof conditions (slate, clay tile or wood shingles), roof height, roof pitch, weather conditions or accessibility. Plus, flashings generally also rely on some form of elastomeric caulk to complete the seal and transition. Thus, over time, a flashing system may fail resulting in a possible water entry or leak condition sometime after the inspection. Like any component, flashing systems, while generally durable, are subject to ultimate failure and should be periodically inspected by a qualified roofing or siding contractor for integrity and system performance.

Downspouts are inspected for physical damage but are not inspected for flow restrictions. If gutters and downspouts are not regularly cleaned and maintained, accumulated debris from vegetation and the roof may reduce downspout water handling capacity. Gutter debris screens and downspout screens will reduce this likelihood. Unfortunately, heavy rains are the best indicator of just how well a gutter system will perform...and rains aren't always available at the time of the inspection.

Chimney inspections are visual chimney inspection and are performed for the accessible areas of the chimney and flue. The National Fire Protection Association (NFPA) recommends a level two chimney inspection with the transfer of real estate. This extensive and invasive inspection may reveal concealed defects not visible at the time of the inspection or beyond the our scope of a home inspection. We recommend a CSIA (Chimney Safety Institute of America) technician or equivalent to perform the appropriate chimney, fireplace and/or flue inspection. Below is an explanation of the three levels of inspections and what services your chimney service technician should provide for each level as defined by the NFPA 211:

Level 1 inspections - If your appliance or your venting system has not changed and you plan to use your system as you have in the past, then a Level 1 inspection is a minimum requirement. A Level 1 inspection is recommended for a chimney under continued service, under the same conditions, and with the continued use of the same appliance. In a Level 1 inspection, your chimney service technician should examine the readily accessible portions of the chimney exterior, interior and accessible portions of the appliance and the chimney connection. Your technician will be looking for the basic soundness of the chimney structure and flue as well as the basic appliance installation and connections. The technician will also verify the chimney is free of obstruction and combustible deposits.

Level 2 Inspections – A Level 2 inspection is required when any changes are made to the system. Changes can include a change in the fuel type, changes to the shape of, or material in, the flue (i.e. relining), or the replacement or addition of an appliance of a dissimilar type, input rating or efficiency. Additionally, a Level 2 inspection is required upon the sale or transfer of a property or after an operation malfunction or external event that is likely to have caused damage to the chimney. Building fires, chimney fires, seismic events as well as weather events are all indicators that this level of inspection is warranted. A Level 2 inspection is a more in-depth inspection than a Level 1 inspection. When a Level 1 or Level 2 inspection suggests a hidden hazard and the evaluation cannot be performed without special tools to access concealed areas of the chimney or flue, a Level 3 inspection is recommended. A Level 3 inspection addresses the proper construction and the condition of concealed portions of the chimney structure and the flue. Removal or destruction, as necessary, of permanently attached portions of the chimney or building structure will be required for the completion of a Level 3 inspection. A Level 2 inspection includes everything in a Level 1 inspection, plus the accessible portions of the chimney exterior and interior including attics, crawl spaces and basements. It will address proper clearances from combustibles in accessible locations.

There are no specialty tools (i.e. demolition equipment) required to open doors, panels or coverings in performing a Level 2 inspection. A Level 2 inspection shall also include a visual inspection by video scanning or other means in order to examine the internal surfaces and joints of all flue liners incorporated within the chimney. No removal or destruction of permanently attached portions of the chimney or building structure or finish shall be required by a Level 2 inspection.

Level 3 Inspections – A Level 3 inspection includes all the areas and items checked in a Level 1 and a Level 2 inspection, as well as the removal of certain components of the building or chimney where necessary. Removal of components (i.e., chimney crown, interior chimney wall) shall be required only when necessary to gain access to areas that are the subject of the inspection. When

Roof System (Continued)

serious hazards are suspected, a Level 3 inspection may well be required to determine the condition of the chimney system.

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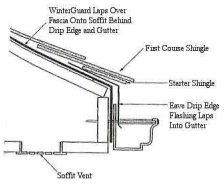
A NP NI M D

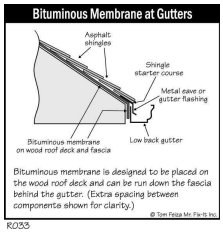
Main house and attached garage Roof Surface

1. Method of Inspection: Binoculars from the ground, Ladder at eaves, On roof
2. ☒ ☐ ☐ ☐ ☐ Unable to Inspect: 10% This roof inspection was limited by the roof height, roof system materials, weather conditions or the geometry of the home. As a result, certain defects or flaws may exist that remain unreported. While every effort was made to examine this roofing system in complete detail, certain constraints prevented a thorough examination. As a result, I recommend that you engage a qualified roofing contractor to examine this roof system and report any present or prospective concerns.
3. ☒ ☐ ☐ ☐ ☐ Material: Dimensional (laminated) organic asphalt [or inorganic glass base mat] shingle (typical life expectancy and warranty approximately 30 years) Roof systems under twenty years old are generally not considered to be warrantable by the installing contractor for labor but materials may be covered by the manufacturer's warranty. The insurance carrier may also provide coverage for a roofing system this age but a variety of service factors will dictate carrier coverage. Defects in the roof system in this period are not uncommon but are certainly possible. Storm, weather and sun damage on roof systems of this age are more impacting and ultimately capable of reducing the useful service life. Roof system damage is certainly more common when a second layer of roofing shingles has been installed over top of an existing layer of shingles. A roofing system of this age is generally considered to be approaching the end of its useful service life and may show signs of deterioration (some blistering, shingle curling and granular loss). Replacement of the roofing system should be anticipated.
4. ☒ One layer of roofing present ☐ Two layers of roofing present ☐ More than two layers of roofing present
   ☒ Ice Guard visible Ice guard installed under drip edge.
5. ☒ ☐ ☐ ☐ ☐ Drip edge installed (rake and eave): Drip edge installed on eave edge, Drip edge installed on rake edge

Roof System (Continued)

6. ☒ ☐ ☐ ☐ ☐ Ice Guard Installed to protect sheathing? Ice Guard has been installed and adhered to top face of drip edge. While this approach works, it is not the best practice for ice dams can still lift the drip edge and damaged the underlying sheathing (or cause interior collateral damage).
7. Ice Guard installed behind gutter? ○ Yes ◉ No The adjacent illustrations suggest how Ice Guard should properly be installed behind a drip edge/gutter in accord with most manufacturer's instructions.





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8. Type: Gable/hip combination with elevated roof gable vents at peak of hip roof sections
9. Approximate Age: Original to home
10. Other Observations:
11. ☐ ☒ ☐ ☐ ☐ Gutter Cables:
12. ☒ ☐ ☐ ☐ ☐ Valleys: Woven asphalt dimensional shingle
13. ☐ ☒ ☐ ☐ ☐ Skylights:
14. ☐ ☒ ☐ ☐ ☐ Non-traditional penetrations
15. ☐ ☐ ☒ ☐ ☐ Soil stack vents: PVC Height, pitch and conditions of roof prevented safe roof-side inspection. Inspection was performed with binoculars and therefore defects may exist that are not revealed. Where possible, an examination will also be made from the underlying attic space to determine whether evidence of leaking is present.
16. ☐ ☒ ☐ ☐ ☐ Electrical Mast:
17. ☒ ☐ ☐ ☐ ☐ Gutters: Aluminum seamless gutters with internal fasteners
18. ☐ ☐ ☐ ☒ ☐ Downspouts: Aluminum Downspout is crushed (compressed) and may limit flow

19. ☒ ☐ ☐ ☐ ☐ Leader/Extension: PVC Storm drains are not inspected for operation or tested for flow during a general home inspection. Storm drains are best examined by a trained operator with a camera. The camera will reveal disconnections, "bellies " (low spots), tree roots, blockage, direction of flow, points of connection, occlusions and other mechanisms of storm drain failure. It is not at all uncommon to find storm drains that lack flow (particularly vitreous tile) or

Roof System (Continued)

Leader/Extension: (continued)

are disjointed (blocked/separated/misaligned). These conditions are particularly common with older homes and homes with large trees and plantings in the immediate vicinity of the home. Many plumbers offer a drain camera service. Whether you wish to have the drains inspected by camera is, of course, your choice. If during the general home inspection, I identify issues suggesting storm drain blockage, then I will certainly identify them for you. Most blockages or storm drain failures, however, remain unseen or undetected until a major rain storm event. Having the drains inspected by camera on older homes will almost always reveal defects that may require attention/correction.

20. Storm Drain Piping ☐ No storm drain piping ☐ Vitreous Tile ☒ PVC ☐ Flexible Plastic ☐ Splashblocks PVC piping is the contemporary standard for storm drain piping and will serve the home for many years.

Garage/Carport

A garage door is a large opening in your home's thermal barrier. Insulated doors will help to reduce the effect of outside air entering your garage, thus reducing the amount of energy required to cool or heat your home. Insulated doors also reduce noise from the exterior of your home.

What maintenance is suggested for a garage or overhead door? While we suggest a certified professional undertake any major repairs, there are some steps you can take to maintain your door. They are:

* Periodically lubricate your garage or overhead door track. Call us to determine the best methods for lubricating your specific door.

* Clean the frame's weather stripping with vinyl cleaner and lubricate it once every other month with an appropriate product to keep the stripping pliable.

* Inspect the rollers every six months and replace any that are worn or broken, or call an appropriate service agency.

* If you have a painted door, periodically paint the exterior to help protect it from the elements.

Garage Door Springs:

Garage door torsion springs are rated by cycle life, with 10,000 cycles (a cycle being one opening and one closing action) the industry standard minimum. Upgrades are available to around 100,000 cycles. The average spring breaks in about 7 to 12 years. If a garage door has two or more springs and one breaks, all springs should be replaced to maintain proper balance.

Garage Door Failure:

The leading causes of garage door failure and/or replacement include lack of maintenance and being hit by vehicles. A proper maintenance schedule for a garage door includes lubrication of the rollers, bearings, pulleys, and springs once a year; washing painted steel surfaces several times a year; painting or refinishing wood surfaces as necessary; and making proper adjustments to the counter balance system as necessary to maintain door balance. A properly balanced garage door should be able to be stopped mid-travel without drifting down or up when operated manually.

Garage/Carport (Continued)

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A NP NI M D

Built-in Garage

1. Type of Structure: Built-in Car Spaces: 2
2. ☒ ☐ ☐ ☐ ☐ Garage Doors: Insulated steel
3. ☒ ☐ ☐ ☐ ☐ Door Operation: Mechanized
4. ☐ ☐ ☐ ☐ ☒ Door Opener: Chamberlain Lift Master Auto-reverse not functioning on overhead door; this is a safety issue! Failure of this door to properly auto-reverse may result in personal injury or property damage. Suggest qualified overhead door technician evaluate and estimate repairs.

5. ☐ ☐ ☐ ☒ ☐ Exterior Surface: Vinyl siding - Water Resistive Barrier (WRB) present Soffit trim suffered vehicular damage as shown.

6. ☐ ☒ ☐ ☐ ☐ Closet:
7. ☒ ☐ ☐ ☐ ☐ Attached garage firewall intact: ◉ Yes ○ No Garage walls and ceilings in attached garages are a part of a protective assembly enclosure typically designed to provide a 20 minute fire rating and escape route for house occupants in the unlikely event of a fire in an attached garage. Attached garages must have ceilings and walls intact (no voids) to prevent entry of smoke, fire or carbon monoxide entry to home. Moreover, the connecting walls between the attached garage and home must be continuous (not interrupted) to assure proper fire and smoke protection for occupants.
8. ☒ ☐ ☐ ☐ ☐ Roof: Asphalt composition dimensional shingle
9. ☐ ☐ ☒ ☐ ☐ Sheathing: Finished ceiling and not accessible
10. ☒ ☐ ☐ ☐ ☐ Floor Drain: Covered
11. ☐ ☐ ☒ ☐ ☐ Roof Structure: Finished ceiling; not accessible
12. ☐ ☒ ☐ ☐ ☐ Service Doors:
13. ☒ ☐ ☐ ☐ ☐ Floor: Concrete floor of indeterminate thickness

Garage/Carport (Continued)

14. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
15. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
16. ☒ ☐ ☐ ☐ ☐ Floor/Foundation: Concrete block
17. ☒ ☐ ☐ ☐ ☐ Hose Bibs: Freezeproof sillcock with vacuum breaker, Hot and cold sillcocks
18. ☒ ☐ ☐ ☐ ☐ Electrical: 120 VAC GFCI, Ceiling lights
19. ☐ ☒ ☐ ☐ ☐ Smoke/Heat Detector:
20. ☐ ☒ ☐ ☐ ☐ Heating:
21. ☐ ☒ ☐ ☐ ☐ Windows:
22. ☒ ☐ ☐ ☐ ☐ Gutters: Aluminum seamless gutters with internal fasteners
23. ☒ ☐ ☐ ☐ ☐ Downspouts: Aluminum
24. ☐ ☐ ☐ ☒ ☐ Leader/Extensions: PVC Receiver damaged at PVC piping: suggest installation of proper receiver to prevent debris entry to piping.

25. Other Observations:

Structural and Structural Components

Water pressure is one of the most common causes for cracking and bowing concrete. It can push upwards (in what's known as geostatic pressure), or push laterally against a wall, especially in colder climates.

In colder areas, moisture freezes when it gets cold (and we all know that water expands when it freezes). If there's enough water in the ground, that freezing process puts pressure on the wall - often enough pressure to crack the wall. Once it's cracked, it can now begin to move with changes in the seasons.

What can put too much water in the ground? Bad or malfunctioning gutters or downspouts; a high water table, broken pipes or lines in the street or yard; dense clay that holds water, or just an area with a lot of rainfall!

Trees and some bushes can grow roots that exert huge pressures on foundation walls, whether it be a crawlspace or basement. Keep in mind that tree roots can grow as far away from the tree as the tree is tall - so that tall oak tree in your yard might very well have roots that extend to the basement walls.

There's no other way to say this - it's possible for the mason to be in a hurry, or build a wall when conditions are not adequate. He might not prepare adequately for the conditions he's working in. He may throw lots of junk in the trench by the walls as it's being built, and that can create issues later on. He may put the wrong size sill plate on the wall, creating lateral pressure on the wall. or he might backfill too soon after building the wall, while the concrete is still curing.

There's a myriad of things that can go wrong in the building process - and the result of any of these issues is that the wall cracks or begins to bow.

Time breaks down just about everything. We know, you're shocked, but it's true. The fact is, basement structures probably only last a hundred years or so, and then they need replaced - and that's if no other outside factors are involved. Add settling, shifting, expansive soils, and outside pressures, and you can cut that number down considerably.

The point here - nothing lasts forever.

Footers (the things your foundation sits on) may be built on loose material. It might expand or contract over time because of the weight on it, or you may be in an area with soils that move. In any case, settling results from the shifting. What you'll see is cracks

Structural and Structural Components (Continued)

that develop from that settling.

Loose backfill that has been placed around the house can also settle and exert extra pressure on the walls, creating the same problem, especially if that backfill is comprised of lots of dense clay materials.

People expect their roofs to need replacing periodically. They also expect to re-paint or re-side their home periodically. What they don't realize is that the same thing applies to a foundation. The coatings put on the walls can break down over time, allowing water to come in contact with the concrete. Once that happens, the water begins to affect the strength of the concrete. At that point you might begin to see discolorations, water, cracks, or even bowing of the walls.

Shrinkage comes from the curing of the concrete or mortar. As it shrinks, cracks develop, usually along mortar lines, but sometimes in the form of vertical cracks. Once there is a crack it is weaker than the surrounding wall, and that leads to the possibility that pressures from outside will begin to bow that wall.

The structure of the home was inspected and reported on with the information contained in this report. While the inspector has made every effort to find all areas of concern, some areas can go unnoticed. Please be aware that the inspector has your best interest in mind. Any repair items mentioned in this report should be considered before purchase. It is recommended that qualified contractors be used in your further inspection or repair issues as related to the issues identified and comments in this inspection report.

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D	Defective	Item needs immediate repair or replacement. It is unable to perform its intended function, shows evidence of prior damage, or is considered to be a safety hazard.

	A	NP	NI	M	D	
1.	☒	☐	☐	☐	☐	Structure Type: Wood frame
2.	☒	☐	☐	☐	☐	Foundation: Concrete block (CMU)
3.	☒	☐	☐	☐	☐	Differential Movement: No movement or displacement noted
4.	☒	☐	☐	☐	☐	Beams/Girders: Steel I-Beam
5.	☒	☐	☐	☐	☐	Bearing Walls: Finished plaster/sheetrock
6.	☒	☐	☐	☐	☐	Joists/Trusses: 2x10
7.	☒	☐	☐	☐	☐	Piers/Posts: Steel Lally columns properly secured
8.	☒	☐	☐	☐	☐	Floor/Slab: Concrete slab of undetermined thickness, Concrete floor obscured by floor coverings
9.	☒	☐	☐	☐	☐	Stairs/Handrails: Basement to first floor stairs, Wood stair and wood handrailings
10.	☒	☐	☐	☐	☐	Stairs/Handrails: First to second floor stairs, Wood stair and wood handrailings
11.	☒	☐	☐	☐	☐	Subfloor: Oriented strand board [osb]
12.	Other Observations:					

Electrical System

Many houses constructed pre1960's have what is called knob and tube wiring. Basically, no ground at each outlet or fixture outlet means knob and tube wiring is likely present. Likewise a home with older pushbutton switches is also a good sign knob and tube wiring is present.

Home owners with knob and tube wiring may find it difficult to obtain insurance on their home because insurance companies are not as likely to insure a house they perceive as high risk. Insurance companies may require a certificate of inspection and compliance from a licensed electrician that all knob and tube has been removed and replaced with modern 3 wire grounded circuits before it will insure a home that previously had knob and tube wiring. After the electrician rewires the home and your home is given a satisfactory electrical assessment, the insurance company will consider giving an insurance policy for your home.

Knob-and-Tube wiring was the predominant wiring system through the 1920's and 1930's; some installations of knob-and-tube wiring continued in houses up through the 1960's. There are several distinguishing characteristics of knob-and-tube wiring in comparison to current wiring methods. When run perpendicular to structural components (such as floor joists), modern wiring runs directly through holes in the structural components. Knob and tube wiring used protective ceramic tubes placed in the holes to prevent the wire from chafing against the structure. Modern wiring uses staples to hold the wiring against structural components when the wire is running parallel to the component. Knob-and-tube wiring used ceramic knobs to clamp the wire to the structural member and to maintain proper clearance.

Connections between modern wires are completed within enclosed electrical junction boxes. Knob-and-tube wiring had visible connections. The wires were spliced and soldered together and then wrapped with electrical tape. These connections are called pig-tail connections because one wire is wrapped several times around the other wire before the two are soldered together. Ceramic knobs were strategically placed to protect the splice ensuring that inadvertent tugging on the wire would not stress the electrical connection. In modern wiring, the hot wire (black) and neutral wire (white), along with a ground wire (bare or green), are insulated separately and bundled in a single plastic sheathing. In knob-and-tube wiring, the hot and neutral were insulated and run through a house separately, usually several inches apart. Knob-and-tube wiring did not include a ground wire.

In a modern wiring system, many branch circuits use 14 gauge conductors protected by a 15amp circuit breaker. Larger, 12 gauge conductors are required for 20 amp circuits. Knob-and-tube wiring typically consists of 12 gauge conductors. While the differences are considerable, there is nothing inherent in the original, unmodified knob-and-tube wiring that makes it dangerous. The original knob-and-tube wire, when properly installed, was not inherently a problem. While opinions regarding the safety of knob-and-tube wiring vary widely, the concerns are not with the original wiring, but rather with what happens after the fact. For example, surrounding knob-and-tube wiring with insulation reduces the current carrying capacity of the conductors. Unmodified, knob-and-tube wiring is the oldest wiring method found in American homes and it has proven to be both safe and reliable. However, when this wiring system is modified by unqualified persons, the inherent safety of the wiring system is dangerously compromised.

Older homes with knob-and-tube wiring were often supplied with 60-amp service at the main electrical panel. They were also subject these limitations: limited number of circuits; limited number of electrical outlets per room; and rooms, outlets and lighting circuits were often wired together on one circuit. These factors opened knob-and-tube wiring to potential abuses of the electrical system after the initial installation.

Over the years, the demand for household electrical capacity has grown dramatically. Most knob-and-tube systems predate television, space heaters, computers, and dozens of other appliances that are today taken for granted. As the need for electrical capacity grew, older wiring systems were modified for the convenience of the occupants. In some cases, these modifications put undue stress on the wiring system.

In response to the limited number of outlets per room, additional outlets may have been added to the existing circuits. In many cases, the quality of the connections was not up to the standards of the original system. For instance, a portion of an existing wire conductor would be stripped of its insulation, and new wire taped on to service a new outlet. The connection may not have been soldered, and the new wire may have been of a lighter gauge. Stress protection for the new connection was rarely considered.

With additional outlets and increased electrical consumption, problems also arose with circuit protection. If circuits became overtaxed and 15 amp fuses were constantly blowing, some ill-informed homeowners would put in 25 or 30 amp fuses to rid themselves of the annoyance. Allowing excessive current to flow through the conductors could lead to overheating, which, in turn, could lead to degradation and embrittlement of the wire insulation and the wire itself. Importantly, the original knob and tube wiring systems were installed in homes without insulation surrounding the conductors. With an increasing concern over energy efficiency, homeowners have added blown-in insulation and fiberglass insulation with Kraft paper vapor retarder to areas containing the knob and tube wiring. The impact of this insulation is to reduce the free air space around the wiring thereby de-rating the current carrying

Electrical System (Continued)

capacity of the wiring. The National Electrical Code (NEC) specifically prohibits the installation of insulation around knob and tube wiring (because the insulation may lead to over-heating of the conductors).

Finally, the wiring could suffer from physical abuse over time. Rather than hugging structural components, knob-and-tube wiring was suspended away from surrounding surfaces. Bumping the wiring could place stresses and cause resultant damage on a portion of the wire or insulation. This could be particularly true in accessible attics.

The conditions outlined above can be categorized as an abuse of a homes' electrical system. These abuses like improperly added connections, "over-fusing", insulation type and placement, wire embrittlement and physical damage can result in point sources of high resistance. It is at these points that fire potential is greatest. Ultimately, it is the abuse to the wiring system that is potentially dangerous.

All electric defects should be considered hazardous until corrected. I recommend all electric repairs be performed by a licensed electrical contractor.

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A NP NI M D

1. Service Size Amps: 200 Volts: 240 VAC
2. Service Capacity 200 Volts: 240 VAC
3. ☒ ☐ ☐ ☐ ☐ Service: Underground
4. ☒ ☐ ☐ ☐ ☐ 120 VAC Branch Circuits: Copper
5. ☒ ☐ ☐ ☐ ☐ 240 VAC Branch Circuits: Copper
6. ☐ ☒ ☐ ☐ ☐ Aluminum Wiring: Service entry cable only
7. ☒ ☐ ☐ ☐ ☐ Conductor Type: Non-metallic cable (Romex) - plastic jacket
8. ☐ ☐ ☐ ☒ ☐ Bonding/Grounding Ground rod, Derived ground and proper bonding to water pipe within 5' of point of entry Ground rod (for electrical lightening safety) is not visible and is required to be visible and accessible to permit verification and service, if required, at the point of connection. Suggest a licensed electrician verify the presence of a properly installed ground rod. Bonding conductor missing from HVAC vibration damper assembly. An electrician can readily install this bonding jumper for electrical safety.



9. ☐ ☐ ☐ ☒ ☐ Smoke Detectors: Hard wired with battery back up Hard wired smoke

Electrical System (Continued)

Smoke Detectors: (continued)
detectors are present in this home but are not labeled in this panel. The smoke detectors are presumably associated with some other circuit but without labeling, this circuit could be "turned off" resulting in the loss of power to the life-saving smoke detectors. Smoke detectors should be served by a dedicated circuit breaker and, based on contemporary standards, this breaker should be an Arc Fault type breaker. Hard wired smoke detectors are present in this home but are not served by a separate, identified breaker or AFCI device as shown. The smoke detectors are associated with another circuit, and should this circuit encounter a fault that would trip the breaker/AFCI device, the result would be the loss of power to the life-saving smoke detectors (a condition that could possibly remain undetected for a period of time). Smoke detectors should be served by a dedicated circuit breaker and, based on contemporary standards, this breaker should be an Arc Fault type breaker (AFCI). Arguably, smoke detectors (alarms) could share a known circuit like the basement lights, for example, so that if the circuit is tripped, it will be readily identified.

10. ☐ ☒ ☐ ☐ ☐ Low voltage lighting and wiring:

Basement utility room Electric Panel

11. ☒ ☐ ☐ ☐ ☐ Manufacturer: Siemens

12. Maximum Capacity: 200 Amps

13. ☒ ☐ ☐ ☐ ☐ Main Breaker Size: 200 Amps Green arrow identifies main electrical service breaker for emergency disconnect

Electrical System (Continued)

14. ☐ ☐ ☐ ☒ ☐ Breakers: Copper This home is equipped with a Radon mitigation system. However, no breaker in the panel identifies the power source for this system. The risk is that this system might inadvertently be disconnected: a real health and safety hazard! Suggest the installing Radon system contractor (or a licensed electrician) identify the branch circuit and breaker for this system and properly label the breaker. This home is equipped with a Home Security System. However, no breaker in the panel identifies the power source for this system. The risk is that this system might inadvertently be disconnected: a real health and safety hazard! Suggest the installing Security System contractor identify the branch circuit and breaker for this system and properly label the breaker (or install a new, dedicated breaker or AFCI).
15. ☐ ☒ ☐ ☐ ☐ Fuses:
16. ☐ ☒ ☐ ☐ ☐ GFCI:
17. ☐ ☐ ☒ ☐ ☐ AFCI Bedrooms only Arc Fault breakers are not tested in occupied homes to prevent possible interruption of service to computers that may be present. Recommend buyer periodically test operation of AFCI units through use of test button located on AFCI unit in service panel. Starting with the 1999 version of the National Electrical Code (NEC 70), also called NFPA, in the United States (US) and the 2002 version of the Canadian Electrical Code in Canada (CSA Standard C22.1) the national codes require AFCI units in all circuits that feed outlets in bedrooms of dwelling units. This requirement is typically accomplished by using a kind of circuit-breaker (defined by UL 1699) in the breaker panel that provides combined arc-fault and over current protection. Not all US. jurisdictions have adopted the AFCI requirements of the NEC as written.

The AFCI is intended to prevent fire from arcs. AFCI circuit breakers are designed to meet one of two standards as specified by UL 1699: "branch" type or "combination" type (note: the Canadian Electrical Code uses different terminology but similar technical requirements). A branch type AFCI trips on 75 amperes of arcing current from the line wire to either the neutral or ground wire. A combination type adds series arcing detection to branch type performance. Combination type AFCI units trip on 5 amperes of series arcing. The advanced electronics inside an AFCI breaker detect sudden bursts of electric current in milliseconds; long before a standard circuit breaker or fuse would trip. A "combination AFCI breaker" will provide protection against Parallel arcing (line to neutral), Series arcing (a loose, broken, or

Electrical System (Continued)

AFCI (continued)

otherwise high resistance segment in a single line), Ground arcing (from line, or neutral, to ground), Overload protection (for resistance loads such as heaters; inductive loads such as motors may require additional overload protection) and from Short circuit protection. In 2002 the NEC removed the word "receptacle" leaving "outlets"; in effect adding lights within dwelling bedrooms to the requirement [debated interpretation]. The 2005 code made it more clear that all outlets must be protected despite discussion in the code-making panel about excluding bedroom smoke detectors from the requirement. "Outlets" is defined in "Article 100 Definitions" of the NEC as "A point on the wiring system where current is taken to supply utilization equipment" and this includes receptacles, light fixtures and smoke alarms, among other devices. As of January 2008 only "combination type" AFCI units will meet the NEC requirement. The 2008 NEC requires the installation of combination-type AFCI units in all 15 and 20 ampere residential circuits with the exception of laundries, kitchens, bathrooms, garages and unfinished basements. The 2011 and 2014 NEC require arc fault protection for all occupiable rooms.

18. Is the panel bonded? ◉ Yes ○ No Main panels are bonded. The neutral and grounding conductors are all connected together and bonded to the panel case. This applies only to the main service panel.
19. Is this a sub-panel? ○ Yes ◉ No Sub-panels are not bonded. The neutral and grounding wires are separate and only the ground is connected to the panel case.
20. Other Observations:

Basement Area (unfinished basement)

Asbestos:

Asbestos is most often found in basement spaces (pipe insulation, floor tile) but can also be found in wall plaster, exterior siding materials, flooring adhesive and elsewhere in older homes.

Asbestos Containing Building Material (ACBM) is regulated by the federal government under the Environmental Protection Agency. The only way to know if the material contains asbestos is to have it tested by a qualified lab. Material containing more than 1% asbestos falls under EPA guidelines as containing asbestos. The most common form of asbestos found in this type of material is chrysotile asbestos. Most of the health problems associated with asbestos involve the inhalation of asbestos fiber by people whose lungs are compromised by other factors. A typical case might be a two pack a day smoker who worked in the ship yards. Asbestos containing material which is in good condition, including textured ceiling material, does not "give off" asbestos fibers. Fibers can be released into the air when the material is damaged or improperly removed (e.g., physical impact, drilling or sanding). Under the federal Asbestos Hazard Emergency Response Act (AHERA), suspected ACBM must be assumed to contain asbestos until proven otherwise through sophisticated laboratory analysis using Polarized Light Microscopy (PLM) or Transmission Electron Microscopy (TEM) to identify that the suspect material contains less than 1% by weight of the suspected asbestos (there are many types but Chrysotile is the most common and perhaps least harmful). Chrysotile is a white asbestos with a white curly fiber. Chrysotile accounts for 90% of asbestos in products and is a member of the serpentine group. It is a magnesium silicate. Amosite is brown or gray in color with straight fibers belonging in the amphibole group which contain iron and magnesium. Crocidolite (Riebeckite) is a member of the amphibole group. Crocidolite takes the form of straight blue fibers and is formed from sodium iron magnesium silicate.

Water entry and efflorescence:

Basement Area (unfinished basement) (Continued)

Improperly managed ground water on the exterior of a home will find its way into and through the interior basement or crawl space walls resulting in water-staining, efflorescence (dried soluble salt left behind by water from the exterior) and most severely, walls that are structurally compromised (cracking, deflection, bowing).

Expansive soils contain minerals such as smectite clays that are capable of absorbing water. When they absorb water they increase in volume. The more water they absorb the more their volume increases. Expansions of ten percent or more are not uncommon. This change in volume can exert enough force on a building or other structure to cause damage. Cracked foundations, floors and basement walls are typical types of damage done by swelling soils. Damage to the upper floors of the building can occur when motion in the structure is significant.

Expansive soils will also shrink when they dry out. This shrinkage can remove support from buildings or other structures and result in damaging subsidence. Fissures in the soil can also develop. These fissures can facilitate the deep penetration of water when moist conditions or runoff occurs. This produces a cycle of shrinkage and swelling that places repetitive stress on structures.

All (most) basements have moisture present: some actually get water! Basements (and to a lesser degree, crawl spaces) are subject to water penetration. Think about it, we dig a hole in the ground (akin to a swimming pool) and plunk a basement or crawl space in it and then expect it to be dry. Silly! Basement walls are not water proof despite our best intentions and sometimes marginal (inadequate) efforts. Wet or damp basements in both summer and winter are primed for fungal growth (mold). Mold needs four elements for growth: a viable mold spore, a temperature that you and I like (70-90 degrees is ideal), moisture (surprise!) and an organic or carbon-based food source like wood, the paper facing or backing on drywall, dirt on or in insulation or on walls and other growth materials. So, reducing the moisture takes away a key ingredient for mold growth. The easiest, least expensive and perhaps best solution is to use a dehumidifier set to run continuously but set the humidity setting around 50 percent. Let the humidistat in the dehumidifier control the units' operation throughout the year. And, if you can, connect a hose to the unit run to a floor drain for continuous drainage (too many people forget to empty the bucket). Finally, remove all cardboard boxes, paper and other organic materials from the basement (or crawl space) floors. Store these materials in plastic storage containers or on elevated shelves but not directly on the concrete (they will wick moisture from the concrete and begin the development of fungal growth.

Basements (Unfinished and finished):

Unfinished basements do not have ceiling height requirements and do not typically require secondary egress doors or windows. Of course, new work on an older basement must comport with contemporary building requirements and manufacturer's requirements in effect at the time that the work was performed. Often times, in finishing basements, habitable rooms are created in this available space. Habitable rooms are where living, sleeping, eating and cooking occur. Bathrooms, utility rooms, laundry rooms hallways and store rooms are not considered habitable rooms. Habitable rooms require certain minimum standards including light, ventilation (heat and/or cooling) and a conforming ceiling height. Light can be from an electrically switched light (lamp or ceiling light) or a conforming window(s) (in terms of size). All basements require at least one switched light (with the switch near the room entry). Ventilation can be provided by an operable window or mechanical ventilation. Habitable rooms must have a minimum ceiling height of 7' (84") as measured to the lowest ceiling projection to the floor. In newer homes, this minimum ceiling height in an unfinished basement is 80".

Newer homes with finished basements or older homes retrofitted with habitable rooms (like a bedroom) must have a secondary escape route or rescue opening provided in the form of a door or an egress window (egress windows have specific definitions and installation standards). Windows must meet certain prescriptive size and location specifications within the wall and must have prescribed access to the outside. Finished habitable rooms in basement spaces (under ground) must have access to such an escape route or this inspector will consider the habitable room defective as this is a serious potential fire safety issue and the reason that the secondary egress has been required for habitable rooms.

Basement Area (unfinished basement) (Continued)

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A NP NI M D

Partial basement Basement

1. ☒ ☐ ☐ ☐ ☐ Unable to Inspect: 10% Storage cabinets and personal possessions limit a full and complete inspection, Insulation for rim joist limits access for inspection of the sill plate and rim joist inspection
2. ☐ ☒ ☐ ☐ ☐ Closet:
3. ☐ ☐ ☐ ☒ ☐ Ceiling: Exposed framing This basement has holes through the ceiling to and through the floor above. Some municipalities will not permit basement ceiling voids (holes) as these voids may act as chimneys in the unlikely event of a fire. Suggest you check with your municipal building department to determine whether these voids (holes) are acceptable and require sealing (repair). In any case, these voids pose an opportunity for the loss of conditioned (heated) air to the space above. Suggest sealing these voids (holes) for safety and energy efficiency.

4. ☐ ☐ ☐ ☒ ☐ Walls: Concrete block units (CMU) Elevated moisture present at one or more locations as identified with "red dots". Dots indicate areas of higher relative moisture and represent samples only. Efflorescence is present. Efflorescence is the deposition of a soluble salt from the masonry. The salt itself is not harmful but is a very strong indicator of the presence of moisture in and through the wall. When water is present on the exterior face of the wall, and when moisture is pressure driven through the wall, the moisture carries with it the soluble salts . When the moisture dries on the interior face of the wall, the salts are left behind attached to the interior wall and provide the visible evidence of the exterior moisture present at an earlier time. Evidence of erosion on exterior all may be source of interior basement wall moisture. Suggest a licensed plumber investigate PVC storm drain piping with a camera to verify integrity of piping and to identify source (cause) of erosion.

Basement Area (unfinished basement) (Continued)

Walls: (continued)



5. ☒ ☐ ☐ ☐ ☐ Floor: Concrete floor of indeterminate thickness
6. ☒ ☐ ☐ ☐ ☐ Floor Drain: Covered
7. ☐ ☒ ☐ ☐ ☐ Doors:
8. ☒ ☐ ☐ ☐ ☐ Windows: Glass block with and/or without vents
9. ☒ ☐ ☐ ☐ ☐ Electrical: Ceiling lights
10. ☐ ☐ ☐ ☐ ☒ Smoke/Heat Detector: Hard wired with battery back up
    Detector missing; replacement strongly advised; life safety issue!

11. ☐ ☒ ☐ ☐ ☐ HVAC Source:
12. ☐ ☒ ☐ ☐ ☐ Vapor Barrier:
13. ☒ ☐ ☐ ☐ ☐ Insulation: Rim joist insulated with fiberglass
14. ☒ ☐ ☐ ☐ ☐ Ventilation: Operable window vent (one or more)
15. ☐ ☒ ☐ ☐ ☐ Sump Pump:
16. ☐ ☐ ☐ ☒ ☐ Moisture Location: Basement wall at one or more locations as identified. See wall notes above.
17. ☐ ☒ ☐ ☐ ☐ Asbestos (suspected):
18. Dehumidifier present and operational? ○ Yes ◉ No No dehumidifier present. Strongly recommend high-capacity dehumidifier in basement. Dehumidifiers should be allowed to run 365 days per year, controlled by their humidistat, and a target of 45 to 50% humidity (summer and winter) is a reasonable objective. Allow the unit to run and let the humidistat control the run time. Ideally, this unit will drain via a hose to a basement drain or sump pump so the bucket will not require emptying. High relative humidity measured in basement. High relative humidity is a key ingredient required for fungal growth.

19. Other Observations:

Attic (unfinished top level spaces)

Attic spaces must be carefully watched for the development of roof leaks. Bath exhaust fans must not be ventilated into attic spaces. Penetrations from the second floor should be sealed. Insulation should be adequate for the home and should not block or impede soffit vents. The home inspector shall observe: insulation and vapor retarders (sometimes called "barriers") in unfinished spaces; ventilation of attics and foundation areas; kitchen, bathroom, and laundry venting systems; and the operation of any readily accessible attic ventilation fan, and, when temperature permits, the operation of any readily accessible thermostatic control.

Ventilation in an attic is as important as the insulation and the two elements work in concert to keep the underlying house warm in the winter season or cool in the summer season. These two building components lower heating/cooling cost, lessen the likelihood for ice damming and may increase the useful service life of the roof system and its underlying components.

Ventilation in the attic space requires a source of ventilation (inlet air) as well as exhaust. The inlet air is typically supplied by soffit vents or gable vents. The exhaust or outlet air is typically vented through the ridge vent, passive cans or a turbine. Their is a need for a balance between the source of ventilation air and exhaust air. Generally, we need as much or more "inlet" air as exhaust air. We use a formula that examines the square footage of the attic space divided by 150 (if no vapor barrier is present or 300 if a suitable vapor barrier is present) and divide that result by 2 to determine the square footage of inlet net-free area and exhaust net free area. This number is then used to calculate appropriate ventilation (soffit, gable, ridge and passive or active ventilation "cans".

Perhaps the most critical and important element of an attic insulation "job" is to assure proper air sealing. Air sealing is the process of sealing voids between the attic floor and the underlying ceiling. This is best performed with expansive foam and/or caulk. Typically it requires removing the relocating the existing insulation in order to expose the voids in the attic floor plane that must be sealed to prevent the migration of conditioned (heated and cooled) air from the living space below to the attic. Air flows to the attic, coupled with improperly installed insulation or inadequate ventilation are prime contributors to the development of mold (fungal growth) and possible ultimate structural damage. This happens (fungal growth) because proper attic ventilation is required to exhaust the warm, moist air generated by humans in their occupancy of the home. The voids that we just discussed are pathways for this warm, moist air to gravitate to the attic. These voids consist of "holes" in the attic floor from wiring and plumbing penetrations, chimney chases, poorly sealed, ceiling-mounted bath fans and light fixtures, improperly constructed soffits, recessed lights (non Insulation-contact rated), poorly seamed drywall and a host of other marginal construction details.

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A NP NI M D

Attic over second floor Attic

1. Method of Inspection: In the attic
2. ☒ ☐ ☐ ☐ ☐ Unable to Inspect: 40% Geometry and framing of attic prevented a thorough inspection of attic space. Insulation prevents a complete and thorough inspection of the attic area without compromising the integrity of the insulation.

Attic (unfinished top level spaces) (Continued)

3. ☐ ☐ ☐ ☒ ☐ Attic access: Scuttle in bedroom closet Access to the attic was limited by the presence of closet shelving (suggest removal or reconfiguration to permit ready attic access), personal possessions and storage.

4. ☒ ☐ ☐ ☐ ☐ Roof Framing: 2x10 Rafter
5. ☒ ☐ ☐ ☐ ☐ Sheathing: Oriented Strand Board [OSB]
6. ☐ ☒ ☐ ☐ ☐ Floor:
7. ☐ ☒ ☐ ☐ ☐ Windows:
8. ☒ ☐ ☐ ☐ ☐ Ventilation: Continuous ridge vent, Periodic soffit vents
9. ☒ ☐ ☐ ☐ ☐ Insulation: Fiberglass batts with paper vapor retarder
10. Unsealed voids in attic floor plane? ◉ Yes ○ No The floor of the attic and the underlying occupied floor is one of the major sources of energy loss in most any home. Many voids (penetrations) exist through this floor areas that create opportunities for energy loss. Recessed lighting that is not Insulation Contact (IC) rated, chimney chases, wiring holes, plumbing stack chases, piping holes, improperly installed and sealed bath fans, lighting fixture boxes, voids in the ceiling plane for staircases, soffits and so goes the list. Many, if not all of these may be present in this attic and present opportunities for energy control and conservation. These are all defects. Ideally, the insulation would be removed to properly and completely expose these defects and to permit a proper remedy which would typically be sealing with expansive foam. Alternatively, the insulation can be completely but selectively lifted to expose the underlying defects to permit the air sealing. The floor of the attic and the underlying occupied floor is one of the major sources of energy loss in most any home. Many voids (penetrations) exist through this floor areas that create opportunities for energy loss. Recessed lighting that is not Insulation Contact (IC) rated, chimney chases, wiring holes, plumbing stack chases, piping holes, improperly installed and sealed bath fans, lighting fixture boxes, voids in the ceiling plane for staircases, soffits and so goes the list. Many, if not all of these may be present in this attic and present opportunities for energy control and conservation. These are all defects. Ideally, the insulation would be removed to properly and completely expose these defects and to permit a proper remedy which would typically be sealing with expansive foam. Alternatively, the insulation can be completely but selectively lifted to expose the underlying defects to permit the air sealing.
11. ☒ ☐ ☐ ☐ ☐ Insulation Depth: 0" - 12" Insulation depth is adequate but does not meet contemporary energy standards (minimum R-38). Existing insulation has an approximate R value of 24. Suggest additional insulation be installed for improved energy efficiency.
12. ☒ ☐ ☐ ☐ ☐ Vapor Barrier: Kraft paper barrier to warm side of house
13. ☐ ☒ ☐ ☐ ☐ Attic Fan:
14. ☐ ☒ ☐ ☐ ☐ House Fan:
15. ☒ ☐ ☐ ☐ ☐ Wiring/Lighting: Attic light, Miscellaneous wiring

Attic (unfinished top level spaces) (Continued)

16. ☐ ☒ ☐ ☐ ☐ Moisture Penetration:
17. ☐ ☒ ☐ ☐ ☐ Exposed Ductwork:
18. ☐ ☒ ☐ ☐ ☐ Smoke Detector:
19. ☐ ☐ ☐ ☐ ☒ Bathroom Fan Venting: Bath fans are vented to soffits Bath fans are vented to soffits; bath fan piping is not insulated; Bath fans should be vented through (approved for the application) roof, sidewall or soffit caps that have back-draft dampers. Piping (ducting) from fan to cap should be insulated to prevent condensation development and the total run length should be as short as practicable.

20. Ventilation ratio (inlet to exhaust) appropriate?
    ◉ Yes ○ No Attic air getting into the attic must be in balance with the air getting out of the attic. An improper balance may lead to overheated attics, ice damming in the winter season, excessive moisture buildup (and possible mold development) and excessive energy costs. The ventilation may or may not be adequate. No visible signs of discoloration (suggesting fungal growth) were identified. However, visible signs are not in and of themselves, sufficient to judge ventilation adequacy. Unfortunately, testing for mold growth is perhaps the one best measurable indicator of ventilation adequacy. There are many nuances to proper ventilation strategy including location, size and placement of intake vents (soffit, shingle or eave vents), length, size and proper ridge vent cut, presence of other ventilation devices including gable vents, power ventilators, passive cans, size and geometry of the attic, insulation type and installation method, proper presence of air channels (baffles), presence or absence of voids (wiring, pipe and chimney chases and other openings in the attic floor to the space below) in attic plane (floor of attic) and air flow in general.
21. Other Observations:

Air Conditioning System

Air conditioning systems cannot be tested when the average temperature is below 60 degrees. This limitation is designed to protect the air conditioning compressor against seizure when the compressor sump oil is insufficiently viscous (too cold).

The ANSI (American National Standards Institute) date is used as a reference when the exact date of manufacture cannot be ascertained from the manufacturer ID plate. The inspected appliance cannot be older than the stated ANSI date and is typically one or two years newer although a few manufacturers (A.O. Smith for example) may lag by as much as five years. Thus, we use the ANSI date to estimate the approximate age of the appliance but this age is an estimate and is not exact.

Air conditioning units are sized by contractors prior to installation based on the cooling load expected. Historically...and to some degree today...it was (and is) not uncommon for a contractor to use his "seat of the pants" estimate as to the air conditioning capacity (tonnage) required to properly cool the structure. Unfortunately, and to assure that clients were cool enough, air conditioning units were (and are to this day) oversized. Oversized units result in inefficiency, improper...that is...inadequate dehumidification, short cycling, and even possible mold growth. Air conditioning units should be properly sized by HVAC contractors using the Manual "J" method. Air conditioning equipment should be properly sized for the calculated cooling (and heating) loads.

Air conditioning equipment is rated by the Seasonal Energy Efficiency Ratio (SEER). The higher the SEER value, the more effective and efficient the Air Conditioning (AC) unit. Older AC units typically had a SEER of perhaps a 4 to 10 rating. Newer units commonly

Air Conditioning System (Continued)

are rated in the 15 to 25 range. So...replacing a ten year old AC unit, with a newer, properly sized unit can add measurable comfort to the home and have a financial payback of five or fewer years.

Finally, using a programmable thermostat (in lieu of a manual unit) to control and set heating and cooling run times can significantly improve indoor air quality, indoor comfort and reduce heating and cooling costs.

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D	Defective	Item needs immediate repair or replacement. It is unable to perform its intended function, shows evidence of prior damage, or is considered to be a safety hazard.

A NP NI M D

Rear yard AC System

1. ☐ ☐ ☐ ☒ ☐ A/C System Operation: System functioned but provided limited cooling on second floor Ideally, we'd like to see a supply/return temperature differential of approximately 15 degrees. This system did not deliver that differential suggesting that the system may require service to maximize the air conditioning system performance. The air conditioning system produced reasonable supply and return temperature differentials but the second floor is measurably warmer than the first floor after several hours of AC operation. Recommend a licensed HVAC contractor evaluate the air conditioning system and possibly re-balance the system to drive more air to second floor and less air to first floor to satisfy the thermostat.
2. ☒ ☐ ☐ ☐ ☐ Condensate Removal: PVC piping to floor drain
3. ☒ ☐ ☐ ☐ ☐ Exterior Unit: Pad mounted and unit is level and plumb This air conditioning system utilizes freon typically identified as R-22 or HCFC - 22. This refrigerant is being phased out as required by the EPA and is getting substantially more expensive and virgin supplies are almost no longer available. Some HCFCs, like HCFC-22, are also a component in refrigerant blends. While these blends are not listed among the 34 controlled HCFCs, they are subject to the same rules because they contain Class II ODS (Ozone Depleting Substances). Common refrigerant blends that contain HCFC-22 include R-401A, R-402A, R-408A, R-409A, R-414B, and R-502A.

   The bottom line for homeowners with this refrigerant present in older air conditioning systems is that the replacement of the equipment will become more cost attractive because the cost of refrigerant replacement will increase dramatically in the near term. At some time in the not-to-distant future, this refrigerant will simply not be available and other alternative refrigerants may

Air Conditioning System (Continued)

Exterior Unit: (continued)

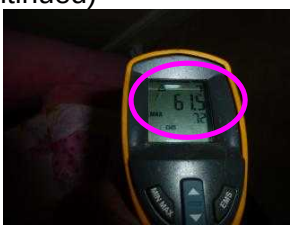
not be compatible with your equipment and system replacement will be required.

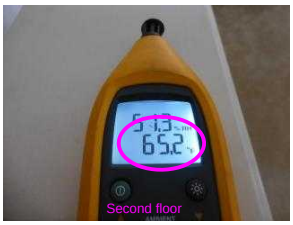

4. Manufacturer: Rheem
5. Model Number: RAND-060JAZ Serial Number: 7307-M3806-13570
6. Area Served: Entire home Approximate Age: Date of manufacture =, 11 years old
7. ☐ ☐ ☐ ☒ ☐ Temperature Differential (if tested): 10-16 degrees The nominal supply temperature from a properly functioning air conditioning unit is typically about 55 degrees when measured closet to the evaporation coil. Measurements made from registers downstream (room registers for example and particularly registers located farther from the furnace as on the second or third floors) of the coil (which is located in the plenum of the furnace) will be slightly warmer particularly in the early stages of cooling. Supply temperatures notably higher than 55 degrees suggest that the air conditioning system is not functioning at capacity and repair or replacement should be expected. The air conditioning performed adequately on the first floor but the second floor was measurably warmer than the first. As noted elsewhere, the system may simply need to be re-balanced to drive more cool to the second floor. Part of the explanation for the warm second floor may be explained by the open floor plan that allows the first floor cool air to "push" the warm air to the second floor. Again, a system balancing may compensate for this cooling concern and/or the system may require the service of a licensed HVAC technician.



Air Conditioning System (Continued)

Temperature Differential (if tested): (continued)

8. Fuel Type: 240 VAC
9. Type: Central A/C Capacity: 5 Ton
10. ☒ ☐ ☐ ☐ ☐ Visible Coil: Aluminum
11. ☒ ☐ ☐ ☐ ☐ Refrigerant Lines: Suction line and liquid line with insulation intact
12. ☒ ☐ ☐ ☐ ☐ Electrical Disconnect: T-bar disconnect with over-current protection on main panel
13. Other Observations:
14. Outdoor temperature: 86
15. Indoor temperature at start of test: 74
16. Indoor temperature at stop of test: 72

Fireplace/Wood Stove

Wood stoves are not inspected. Fireplaces are inspected for visual suitability, safety and function. They are not operationally tested.

As a matter of routine course, wood burning fireplaces should have the chimneys inspected and cleaned regularly by a CSIA (Chimney Institute of America) certified technician.

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A NP NI M D

Fireplace/Wood Stove (Continued)

Living Room Fireplace

1. ☐ ☒ ☐ ☐ ☐ Freestanding Stove:
2. ☒ ☐ ☐ ☐ ☐ Fireplace Construction: Manufactured metal firebox unit direct vented through sidewall

3. Type: Gas log, electric switch control and standing pilot
4. ☐ ☒ ☐ ☐ ☐ Fireplace Insert:
5. ☐ ☐ ☒ ☐ ☐ Flue: Not accessible due to manufactured firebox
6. ☐ ☒ ☐ ☐ ☐ Damper:
7. ☒ ☐ ☐ ☐ ☐ Hearth Extension: 16" sandstone hearth

Bathroom

Properly vented bath fans are a critical component that, if improperly installed (vented), can lead to the development of mold and ultimate structural damage. Bath exhaust fans must be vented to the exterior through appropriate side wall dampers or roof caps. Tubs, jetted tubs, toilets and showers are all inspected for operation during an inspection. Jetted tubs are filled to the appropriate level (above the jets) and the pumps and jets are operated for a brief period of time to assure operating performance. Tubs and showers are operated long enough to assure that the fixtures and faucets are operating properly and that the drainage systems are flowing and draining properly. We perform these tests and we inspect the underlying ceilings for signs of water damage. However, it is entirely possible that latent or slow leaks that may evidence themselves under prolonged operation may go undetected during these shorter duration inspections. Our inspections are limited to the visible evidence and therefore we cannot thoroughly inspect domestic water and drainage systems that are hidden behind walls and underneath floors.

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A NP NI M D

Basement 3/4 bath Bathroom

1. ☐ ☒ ☐ ☐ ☐ Closet:
2. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
3. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
4. ☒ ☐ ☐ ☐ ☐ Floor: Ceramic or porcelain tile
5. ☒ ☐ ☐ ☐ ☐ Doors: Hollow core paneled
6. ☐ ☒ ☐ ☐ ☐ Windows:
7. ☒ ☐ ☐ ☐ ☐ Electrical: 120 Volt GFCI (Ground Fault Circuit Interrupted) outlet or protected outlet (GFCI protection may be located elsewhere in an upstream outlet or in the electrical panel) and a wall fixture.

Bathroom (Continued)

8. ☒ ☐ ☐ ☐ ☐ Counter/Cabinet: Wood vanity, Composite (engineered) counter top with integral sink
9. ☒ ☐ ☐ ☐ ☐ Sink/Basin: Composite with integral bowl
10. ☒ ☐ ☐ ☐ ☐ Faucets/Traps: Unknown manufacturer
11. ☐ ☒ ☐ ☐ ☐ Tub/Surround:
12. ☒ ☐ ☐ ☐ ☐ Shower/Surround: Fiberglass pan and fiberglass surround
13. ☐ ☒ ☐ ☐ ☐ Spa Tub/Surround:
14. ☒ ☐ ☐ ☐ ☐ Toilets: 1 1/2 Gallon Tank
15. ☒ ☐ ☐ ☐ ☐ HVAC Source: Ceiling diffuser
16. ☒ ☐ ☐ ☐ ☐ Ventilation: Bath exhaust fan/light unit Bath exhaust fan termination could not be determined. This bath fan may be vented to the sidewall or ceiling only or may be vented to an attic space. However, bath fans should universally be vented to the exterior. One possible exception might be for a half-bath. In a half-bath, the exhaust fan is used for odor management and not moisture management and venting to a sidewall or ceiling is less concerning. Full bathrooms, particularly with showers, should always be vented to the exterior through a dampered soffit, sidewall or roof cap.

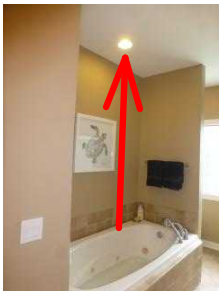
First floor 1/2 bath Bathroom

17. ☒ ☐ ☐ ☐ ☐ Closet: Broom closet
18. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
19. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
20. ☒ ☐ ☐ ☐ ☐ Floor: Ceramic or porcelain tile
21. ☒ ☐ ☐ ☐ ☐ Doors: Hollow core paneled
22. ☐ ☒ ☐ ☐ ☐ Windows:
23. ☒ ☐ ☐ ☐ ☐ Electrical: 120 Volt GFCI (Ground Fault Circuit Interrupted) outlet or protected outlet (GFCI protection may be located elsewhere in an upstream outlet or in the electrical panel) and a wall fixture.
24. ☒ ☐ ☐ ☐ ☐ Counter/Cabinet: Wood vanity, Granite countertop
25. ☒ ☐ ☐ ☐ ☐ Sink/Basin: Underhung porcelain
26. ☒ ☐ ☐ ☐ ☐ Faucets/Traps: Unknown manufacturer
27. ☐ ☒ ☐ ☐ ☐ Tub/Surround:
28. ☐ ☒ ☐ ☐ ☐ Shower/Surround:
29. ☐ ☒ ☐ ☐ ☐ Spa Tub/Surround:
30. ☒ ☐ ☐ ☐ ☐ Toilets: 1 1/2 Gallon Tank
31. ☐ ☒ ☐ ☐ ☐ HVAC Source:
32. ☒ ☐ ☐ ☐ ☐ Ventilation: Electric ventilation fan Bath exhaust fan termination could not be determined. This bath fan may be vented to the sidewall or ceiling only or may be vented to an attic space. However, bath fans should universally be vented to the exterior. One possible exception might be for a half-bath. In a half-bath, the exhaust fan is used for odor management and not moisture management and venting to a sidewall or ceiling is less concerning. Full bathrooms, particularly with showers, should always be vented to the exterior through a dampered soffit, sidewall or roof cap.

Bathroom (Continued)

First floor master bathroom Bathroom

33. ☒ Closet: Linen closet
34. ☒ Ceiling: Textured plaster/sheetrock
35. ☒ Walls: Painted plaster/sheetrock
36. ☒ Floor: Ceramic or porcelain tile
37. ☒ Doors: Hollow core paneled
38. ☒ Windows: Glass block with and/or without vents
39. ☒ Electrical: 120 Volt GFCI (Ground Fault Circuit Interrupted) outlet or protected outlet (GFCI protection may be located elsewhere in an upstream outlet or in the electrical panel) and a wall fixture., Recessed shower/tub light Exposed incandescent lamps (bulbs) are not permitted over bathtubs or showers. Fixtures installed over bathtubs or showers must be installed 8 feet or higher and/or rated for wet location with protected lamps. Fixtures over tubs/showers should be GFCI protected.



40. ☒ Counter/Cabinet: Wood vanity, Granite countertop
41. ☒ Sink/Basin: Underhung porcelain
42. ☒ Faucets/Traps: Unknown manufacturer
43. ☒ Tub/Surround:
44. ☒ Shower/Surround: Fiberglass pan and fiberglass surround
45. ☒ Spa Tub/Surround: Acrylic water jetted tub Jetted tub failed to operate; Whirlpool tubs are inspected for limited operation to determine water fill, drain function, plumbing water distribution and motor operation only. This jetted tub has a pump and related equipment that may require periodic service. This equipment is contained within an enclosure that does not appear to provide a removable service cover access. The inability to access this important equipment will increase service costs when required and may be destructive as some demolition may be required to provide service. Suggest that the seller identify for you the presence of a removable service panel or their method of prior equipment service.

46. ☒ Toilets: 1 1/2 Gallon Tank
47. ☒ HVAC Source: Floor register

Bathroom (Continued)

48. ☐ ☐ ☐ ☒ ☐ Ventilation: Bath exhaust fan/light unit Light inoperative at time of inspection. Bath exhaust fan termination could not be determined. This bath fan may be vented to the sidewall or ceiling only or may be vented to an attic space. However, bath fans should universally be vented to the exterior. One possible exception might be for a half-bath. In a half-bath, the exhaust fan is used for odor management and not moisture management and venting to a sidewall or ceiling is less concerning. Full bathrooms, particularly with showers, should always be vented to the exterior through a dampered soffit, sidewall or roof cap.

Second floor guest bathroom Bathroom

49. ☒ ☐ ☐ ☐ ☐ Closet: Linen closet
50. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
51. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
52. ☒ ☐ ☐ ☐ ☐ Floor: Ceramic or porcelain tile
53. ☒ ☐ ☐ ☐ ☐ Doors: Hollow core paneled
54. ☒ ☐ ☐ ☐ ☐ Windows: Vinyl casement
55. ☒ ☐ ☐ ☐ ☐ Electrical: 120 Volt GFCI (Ground Fault Circuit Interrupted) outlet or protected outlet (GFCI protection may be located elsewhere in an upstream outlet or in the electrical panel) and a wall fixture.
56. ☒ ☐ ☐ ☐ ☐ Counter/Cabinet: Wood vanity, Composite (engineered) counter top with integral sink
57. ☒ ☐ ☐ ☐ ☐ Sink/Basin: Underhung porcelain
58. ☒ ☐ ☐ ☐ ☐ Faucets/Traps: Unknown manufacturer
59. ☒ ☐ ☐ ☐ ☐ Tub/Surround: Fiberglass tub and fiberglass surround
60. ☐ ☒ ☐ ☐ ☐ Shower/Surround:
61. ☐ ☒ ☐ ☐ ☐ Spa Tub/Surround:
62. ☒ ☐ ☐ ☐ ☐ Toilets: 1 1/2 Gallon Tank
63. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register
64. ☐ ☐ ☐ ☐ ☒ Ventilation: Bath exhaust fan/light unit Light inoperative at time of inspection. Bath exhaust fan termination could not be determined with precision for fan/ducting is buried in insulation. However, evidence suggests bath fan is vented to soffit. [Bath fans to soffit]Bathroom exhaust fans should be vented to exterior to prevent condensation, mold growth and potential structural damage to attic spaces and roofing surfaces. Bath fans can be vented through side walls, if the duct run is less than 15' or through the roof to a dampered roof or soffit cap (as would be necessary on a hip style roof). Bath fan appears to be vented to attic or soffit vent (no dampered roof or side wall cap could be located; recommend qualified contractor investigate and re-terminate bath exhaust fan to appropriate dampered cap (roof, soffit or sidewall).

Bathroom (Continued)

Ventilation: (continued)


Heating System

I suggest that new homeowners have a licensed HVAC contractor check all heating and cooling equipment shortly after occupancy on a new home purchase to provide a baseline of condition and service for this equipment. Plans for subsequent repairs, scheduled maintenance or replacement can then be based on this baseline assessment.

The most critical component of a heating system is the heat exchanger. This is the furnace component that separates the firebox from the hot air plenum. A failure of the heat exchanger will permit the addition of unburned hydrocarbons (like carbon monoxide) into the heated air stream (and house). When and where possible, we've inspected the visible portion of the exchanger but most if not all of the heat exchanger is not visible. Therefore, on older heating appliances, a regular inspection by a qualified heating specialist is recommended. Note: The US standard (per ASHRAE 62-1989) for carbon monoxide exposures are as follows:

1) maximum of 35 ppm of CO for one (1) hour exposure (not to be exceeded more than once per year)
2) maximum of nine (9) ppm of CO for eight (8) hour exposure (not to be exceeded more than once per year)
3) A thorough inspection of heat exchangers is limited by furnace type and heat exchanger design without disassembly (which is beyond the scope of this inspection). Higher efficiency furnaces have sealed heat exchangers that cannot be inspected. The heat exchanger is the most critical element in the furnace for a properly functioning heat exchanger prevents the distribution of carbon monoxide gases and unburned hydrocarbons throughout the conditioned space.

Condensate pumps are often used to transport water from condensing furnaces (high efficiency units), humidifiers and air conditioning unit evaporator coils. These pumps and their piping are not inspected for functionality.

The ANSI (American National Standards Institute) date is used as a reference when the exact date of manufacture cannot be ascertained from the manufacturer ID plate. The inspected appliance cannot be older than the stated ANSI date and is typically one or two years newer although a few manufacturers (A.O. Smith for example) may lag by as much as five years. Thus, we use the ANSI date to estimate the approximate age of the appliance but this age is an estimate and is not exact.

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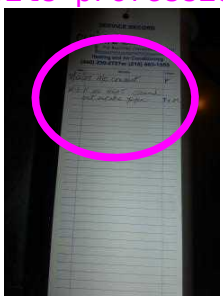
A NP NI M D

Basement utility room Heating System

Heating System (Continued)

1. ☐☐☐☒☐ Heating System Operation: Adequate at time of inspection Plug to seal the combustion compartment is missing. Suggest a licensed HVAC technician install a replacement plug to improve (correct) the energy efficiency of this furnace. Routine and recent furnace/boiler service by a licensed HVAC contactor should be so indicated by the presence of such a service sticker. No such service sticker is present suggesting that this furnace/boiler has not enjoyed recent or routine inspections by licensed HVAC technicians. Recommend regular inspections of furnace unit and heat exchanger (for carbon monoxide emissions), I strongly recommend that you engage a licensed HVAC contractor to perform a baseline (initial) service inspection on the furnace and air conditioning equipment (for the air conditioning equipment when the season permits with weather at or above 60 degrees) as appropriate to assure complete functionality and safety. This licensed HVAC service inspection should involve an evaluation of the heat exchanger (not inspected and beyond the scope of a traditional general home inspection) as well as the air conditioning evaporator coil. This would be a good time to have the evaporator and condensing coils professionally cleaned as well.

2. Manufacturer: Rheem
3. Model Number: RGRA-12ERAJS Serial Number: FY50707F500530405
4. Type: Forced air, High Efficiency (Combustion air and exhaust gases are ducted to exterior) Capacity: 120,000 btu/hr
5. Area Served: Entire home Approximate Age: Date of manufacture =, 12 years old
6. Fuel Type: Natural gas
7. ☐☐☒☐☐ Heat Exchanger: 8 burner Recommend annual furnace checks by qualified HVAC specialist to assure integrity of heat exchanger (when defective, the heat exchanger is the primary source of carbon monoxide gas), Strongly recommend installation of carbon monoxide detectors in bedrooms and living spaces, The heat exchanger is a sealed unit that cannot be inspected without disassembly: a procedure beyond the Scope of Home Inspection
8. ☒☐☐☐☐ Carbon Monoxide
9. Unable to Inspect: Heat exchanger

Heating System (Continued)

10. ☒ ☐ ☐ ☐ ☐ Blower Fan/Filter: Direct drive, High-efficiency filter Filter located here, Media style filters as is used in this home should be inspected every six months for accumulated dirt condition and replaced at least annually. The frequency of filter changes will depend on the cleanliness of the home, presence of pets, air infiltration to home , air changes, cleanliness of basement and other factors. Generally, the cleaner the filter, the cleaner the indoor air and the more efficient the furnace (and air conditioning) will be.

11. ☒ ☐ ☐ ☐ ☐ Distribution: Metal duct
12. ☒ ☐ ☐ ☐ ☐ Gas Service Lines: Black pipe
13. ☐ ☒ ☐ ☐ ☐ Circulator:
14. ☐ ☒ ☐ ☐ ☐ Draft Control:
15. ☐ ☐ ☐ ☒ ☐ Flue Connector Pipe: PVC piping for combustion exhaust and PVC piping for combustion air PVC piping for heating (furnace) has been damaged and proper piping should be replaced by a licensed HVAC technician.

16. ☒ ☐ ☐ ☐ ☐ Controls: Flame roll-out switch, Safety Service Switch
17. ☐ ☒ ☐ ☐ ☐ Devices:
18. ☐ ☐ ☒ ☐ ☐ Humidifier: Honeywell Unit appears to be operational but should be fully evaluated by a qualified heating/cooling contractor
19. ☒ ☐ ☐ ☐ ☐ Exposed Ductwork: Metal ducting Ducts evidence a prior cleaning
20. ☒ ☐ ☐ ☐ ☐ Thermostats: Programmable
21. ☐ ☒ ☐ ☐ ☐
22. Suspected Asbestos: No
23. Other Observations:

Plumbing System

Water pressure in excess of 80 PSI requires a pressure reducing valve to minimize damage to solenoids and faucet devices. When a pressure reducing valve (or back flow prevention valve) is installed, a thermal expansion tank is required to be installed in the cold water line (typically in the vicinity of the water heater). This thermal expansion tank permits expansion of water heated by the water heater (hot water) that would ordinarily expand downstream to the supply source but would be blocked by the pressure reducing or back flow prevention valve.

Inspection of a home with the water turned off poses both challenges and risks. Without water pressure, it is not possible to inspect the water and drainage systems for component leaks, test the fixtures for leaks, flow rates and pressures, or to test the drainage systems for integrity and flow. Whenever possible, the water service should be activated.

Natural gas lines are inspected and "sniffed" using a TIF-8900 Combustible Gas Detector. All identified leaks are marked with adhesive red dots and photographed as a part of the report. Where possible, we will notify the homeowner (or agent) of such leaks. We can only inspect and"sniff" exposed, accessible and visible gas lines. Gas lines behind walls and in ceilings are not inspected. Natural gas, when not properly delivered and contained, is highly volatile, explosive and must be treated with due respect. Natural gas leaks typically occur at plumbing fittings, points of connection and at valves.

The ANSI (American National Standards Institute) date is used as a reference when the exact date of manufacture cannot be

Plumbing System (Continued)

ascertained from the manufacturer ID plate. The inspected appliance cannot be older than the stated ANSI date and is typically one or two years newer although a few manufacturers (A.O. Smith for example) may lag by as much as five years. Thus, we use the ANSI date to estimate the approximate age of the appliance but this age is an estimate and is not exact.

The water heater is the third largest consumer of energy in the home (after the furnace and kitchen). A typical home requires 8-12 gallons of hot water per person to meet the needs of a family. That is why a typical water heater is sized at 40 or 50 gallons. Water heaters have an average life of 8-10 years so replacement after ten years should be expected. Replacing the water heater with a newer unit, particularly a draft-induced high-efficiency unit (draft induced or atmospheric sealed combustion units that do not require dilution air), has multiple advantages: they are better insulated (typical older units are insulated to an R-3 to 6 while newer units are insulated to R18 to 23), are more efficient (more hot water per gallon of hot water), they burn combustion air from the outside air (instead of already heated or cooled indoor air) and minimize the induction of soil gases including Radon. Electric units are more energy efficient than natural gas (almost all of the energy is converted to heat) but the fuel costs are higher than for natural gas (per BTU of heat) and electric units are slower in their recovery rate than natural gas.

The water heater has a device on the top or side of the water heater called a TPR (Temperature Pressure Relief) valve. The purpose of this valve is to prevent the water heater from becoming a "guided missile" in the unlikely event that one or more controls fail to control the temperature or pressure on the water heater. This valve is intended to relieve excess pressure in the water heater. However, sometimes these valves will leak a little bit resulting in some floor staining or sometimes they may leak a lot creating a puddle on the floor. An occasional release of water or some floor staining is not unusual and not a reason for concern. However, water standing on the floor below the TPR discharge extension pipe is a concern and suggests that the replacement of the TPR valve is a good idea. Replacement of this valve is not difficult but will require the partial draining of the water heater.

Water lines and sewer (sanitary and storm) lines between the home and street cannot be readily inspected and are simply tested for flow that does not evidence backup. Lines may leak, may be collapsed, may have flow restriction problems, may have root invasions and other complications. Sometimes these complications are not discovered until subjected to heavy use...perhaps long after you've acquired the property. While a plumber can send a camera through the storm or sanitary drain piping, at an additional expense, this process may...or may not...discover a defect. But, the same process cannot be applied to the domestic lateral water lines. That is why I offer, at no charge to you, SewerGard (see two page Warranty form in Section two of the larger final report). This no charge Warranty coverage provides you with some peace of mind against possible line failure following the home inspection but within the warranty period during normal use of the underground water and sewer lines which are largely not inspectable without special equipment and services,

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D	Defective	Item needs immediate repair or replacement. It is unable to perform its intended function, shows evidence of prior damage, or is considered to be a safety hazard.

A NP NI M D

1. ☒ ☐ ☐ ☐ ☐ Service Line: 3/4" copper
2. ☒ ☐ ☐ ☐ ☐ Main Water Shutoff: Ball valve Green arrow identifies main water shut-off for emergencies

Plumbing System (Continued)

3. ☐ ☒ ☐ ☐ ☐ Pressure Reducing Valve:
4. ☒ ☐ ☐ ☐ ☐ Water Presssure Tested: Water pressure tested Water pressure tested; reading approximately = 40 PSI. While this is a satisfactory pressure value, it is low by typical City water pressure standards.

5. ☒ ☐ ☐ ☐ ☐ Domestic water lines/valves 1/2" copper, 3/4" copper
6. ☒ ☐ ☐ ☐ ☐ Soil pipe (drain pipes): PVC
7. ☒ ☐ ☐ ☐ ☐ Service Caps (clean-outs): Accessible Green arrow identifies service cap(s)

8. ☐ ☐ ☒ ☐ ☐ Soil stack and stack vent Pipes: PVC Height, pitch and conditions of roof prevented safe roof-side inspection. Inspection was performed with binoculars and therefore defects may exist that are not revealed. Where possible, an examination will also be made from the underlying attic space to determine whether evidence of leaking is present.
9. ☒ ☐ ☐ ☐ ☐ Gas Service Lines: Black pipe
10. ☐ ☒ ☐ ☐ ☐ Central Vacuum System Present?
11. ☐ ☒ ☐ ☐ ☐ Water Softener System Present?

Basement utility room Water Heater

12. ☒ ☐ ☐ ☐ ☐ Water Heater Operation: Functional at time of inspection A water heater, after 8-10 years of age, should be considered to be at the end of its useful design service life. This life expectancy can vary depending on water heater set temperature, mineral content of the water, frequency of water heater draining and number and condition of sacrificial anodes and other factors. Recommend appropriate containment (pan) under water heater in the unlikely event of a TPR discharge or water heater leak to prevent damage to nearby finished walls and flooring. While I don't recommend installing the containment pan on this water heater, to limit expense, I certainly recommend that the pan should be installed on the next replacement water heater. If you have to replace a water heater, you should know that on April 16, 2015, new energy efficiency standards from the National Appliance Energy Conservation Act (NAECA) went into effect for water heaters. Starting that day, manufacturers will

Plumbing System (Continued)

Water Heater Operation: (continued)

only be allowed to make water heaters that conform to the new energy standards. Existing water heaters will still be allowed to be sold, but I don't expect that supply to last for more than a few months. Here's how the changes will effect homeowners.

Water heaters under 55 gallons will need to have their energy efficiency rating bumped up just a tad. To do this, manufacturers will be adding about an inch of insulation to the water heater tank. This will increase the diameter of same-capacity water heaters by over two inches, and will increase the height by about one to two inches. This increase in size won't be a big deal for most people, but if the water heater is squeezed into a tight space, replacing the water heater could be a hassle, or possibly require replacements with a smaller unit.

Gas water heaters over 55 gallons will need to have an energy factor of at least .74 to .75, depending on the exact size. To achieve this modest energy factor increase, it's expected that manufacturers will only produce condensing water heaters for these larger sizes. That means a power vent water heater, which needs to have its own dedicated exhaust vent, a power source, and a way to dispose of condensate will be required. These water heaters are obviously more expensive, and the installation costs will be higher too.

Electric water heaters over 55 gallons are about to get silly. For these units, the energy factor is going to more than double. To get there, you'll be looking at a heat pump water heater. Never seen one? I haven't either.

A heat pump water heater works by extracting heat from the air and transferring it to the water in the tank. Of course, this means it'll act like an air conditioner in the home. How much will this cool the spaces it's in? I don't know yet, but I've heard it's fairly significant.

Tankless water heaters won't change much. The energy factor for gas fired tankless water heaters will be going up from .62 to .82, but the vast majority of tankless water heaters produced today already exceed the new energy standard. The energy factor for tankless electric water heaters will remain the same.

Plumbing System (Continued)

Water Heater Operation: (continued)

13. Manufacturer: Rheem
14. Model Number: PROG50-42N RH67 PV Serial Number: M441502943
15. Type: Draft induced unit (uses a fan to pull combustion gases through flue in center of tank). Draft -induced units are safer and more efficient than conventional water heater units by eliminating the draft diverter and therefore the unit uses far less indoor conditioned air for combustion and venting and provides a more reliable draft., Flammable Vapor Ignition Resistant unit (FVIR) 50 Gal.
16. Approximate Age: Date of manufacture =, 2 years Area Served: Entire home
17. ☒ ☐ ☐ ☐ ☐ Flue Connector Pipe: PVC piping for exhaust only
18. ☒ ☐ ☐ ☐ ☐ TPRV and Drain Tube: Copper Temperature Pressure Valve (TPR) is installed and appears visually to be operational. However, the actual valve has not been tested during this inspection. I recommend that a licensed or otherwise qualified plumber test this valve for proper operation prior to property purchase and on a regular basis thereafter (or alternatively, have it replaced periodically with a new unit) per the manufacturer's instructions. This valve is a critical safety device that, if it malfunctions, could result in unsafe temperature or pressure build-up in the water heater which can result in serious injury or death and/or serious property damage.
19. ☐ ☒ ☐ ☐ ☐ Thermal Expansion Tank

Kitchen

Inspection of kitchen appliances is limited to an operational verification. That is, I verify that the cooktop or range burners operate, that the oven heats (I do not verify that the thermostat is accurate or that the oven heat is uniform). I will verify that the dishwasher is operational, that the door is properly hinged and the unit is properly secured to the cabinet and that the dishwasher does not leak but I do not evaluate its ability to clean. I will verify that the garbage disposer is working and that it does not leak. I will verify that the refrigerator/freezer is cooling and the gaskets are intact (and when icemakers and water dispensers are present,I will verify that they are working). I will verify that microwave units are operating and capable of heating water. Range hoods will be inspected for operation and I will identify whether they are re-circulating or units ducted to the exterior. I will identify model numbers when they are available for submission to the appliance Recall Chek to determine whether the manufacturer has issued a recall for the appliance (you will receive a separate report) for your appliances.

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A NP NI M D

First floor Kitchen

1. ☒ ☐ ☐ ☐ ☐ Cooking Appliances: GE, Gas range
2. ☒ ☐ ☐ ☐ ☐ Ventilator: General Electric Ventilator ducted to exterior
3. ☒ ☐ ☐ ☐ ☐ Disposal: Badger
4. ☒ ☐ ☐ ☐ ☐ Dishwasher: General Electric
5. Anti-hammer arrestors present? ○ Yes ◉ No Anti-hammer arrestors are now required for new installations but are suggested to reduce water hammer on pipes with solenoid closure on dishwasher

6. Air gap for dishwasher present? ○ Yes ◉ No
7. ☐ ☒ ☐ ☐ ☐ Closet:
8. ☐ ☒ ☐ ☐ ☐ Trash Compactor:
9. ☒ ☐ ☐ ☐ ☐ Refrigerator: General Electric Refrigerator condensing coils are generally located at the bottom front of most refrigerators. Thee soils get dirty quickly and when they are dirty (with dust, pet hair and debris) they prevent the refrigerator from properly dissipating heat and thereby possibly shortening the service life of the refrigerator. The coil are best cleaned using a tapered refrigerator coil brush (available at the big box stores) and a hose equipped vacuum. Cleaning these coils regularly (at least several times each year) will improve the cooling capacity of the refrigerator (it will not have to work as hard), reduce energy consumption, and extend the useful service life of the refrigerator. Of course, these coils can be professionally cleaned

Kitchen (Continued)

Refrigerator: (continued)
but it is certainly a DIY kind of job too..

10. ☒ ☐ ☐ ☐ ☐ Microwave: General Electric
11. ☒ ☐ ☐ ☐ ☐ Sink: Twin bowl stainless steel
12. ☒ ☐ ☐ ☐ ☐ Electrical: Recessed lights and three prong grounded outlets., Pendant lights, Under cabinet lights, Over cabinet lighting
13. ☒ ☐ ☐ ☐ ☐ Plumbing/Fixtures: Brushed nickel, single handle faucet with integral sprayer
14. ☒ ☐ ☐ ☐ ☐ Counter Tops: Granite
15. ☒ ☐ ☐ ☐ ☐ Kitchen Island: Granite, GFCI present
16. ☒ ☐ ☐ ☐ ☐ Cabinets: Wood
17. ☒ ☐ ☐ ☐ ☐ Pantry: Single
18. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
19. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
20. ☒ ☐ ☐ ☐ ☐ Floor: Engineered flooring
21. ☐ ☒ ☐ ☐ ☐ Doors:
22. ☒ ☐ ☐ ☐ ☐ Windows: Vinyl casement
23. ☒ ☐ ☐ ☐ ☐ HVAC Source: Register through toekick
24. ☐ ☒ ☐ ☐ ☐ Smoke Detector:

Bedroom

Smoke and carbon monoxide detectors should be installed in every bedroom (and or outer hallway) and on every occupiable level of the home. The best arrangement is to have the units interconnected either hard-wired or wireless so that an alarm on one level will sound the alarm on all levels. Contemporary evidence makes clear that smoke alarms and/or detectors absolutely save lives. We now know that photo electric style detectors work better for most fires than ionization style units. The ionization style units are predominant in the market but they are not nearly as effective in sensing smoldering fires (the principle cause of fire related deaths). All older smoke alarms (older than five years) should automatically be replaced with photo electric units. Replacement units should be the photo electric units (not ionization or combination). The cost difference is negligible but the response time for detection for the photo electric units is so far superior to ionization units in sensing smoldering fires that the decision to replace existing ionization alarms with photo electric units is a "no brainer." Homes with central alarm and detection systems should also have the older ionization style detectors replaced with photo electric style units.

Smoke alarm testing is limited to "pushing the button". This simply verifies that the button is working and that the audible alert on the alarm is working. This test does not test the electronics or sensitivity of the alarm. I used to use artificial smoke to better test the alarm response sensitivity however, some manufacturers now state that this artificial smoke may damage or desensitize the alarm and may void the warranty. So, now I test just as you would by "pushing the button" and waiting for the alarm to sound. However, it would be smart to periodically test each smoke alarm yourself, once each month, by "pushing the button."

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A NP NI M D

Bedroom (Continued)

First floor master bedroom Bedroom

1. ☒ ☐ ☐ ☐ ☐ Closet: Walk In
2. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
3. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
4. ☒ ☐ ☐ ☐ ☐ Floor: Carpet is present. When carpet is present, an inspection of the substrate (subfloor) is not possible so the condition of the substrate (e.g., plywood, hardwood, OSB or concrete) cannot be assessed and as a result defects may be present that are not noted herein.
5. ☒ ☐ ☐ ☐ ☐ Doors: Hollow core paneled
6. ☒ ☐ ☐ ☐ ☐ Windows: Vinyl casement, Fixed thermopane
7. ☒ ☐ ☐ ☐ ☐ Electrical: Recessed lights and three prong grounded outlets., Ceiling fan
8. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register
9. ☐ ☐ ☐ ☒ ☐ Smoke Detector: Hard wired with battery back up, Ionization style detector This is an ionization style detector that has been shown through laboratory tests to be less effective than the photoelectric type of smoke alarm. This is an older unit and it should be replaced with the newer photoelectric style unit for safety. There has been controversy over activation times of smoke alarms. Ionization alarms are generally deemed to be more effective on actively flaming type fires while photoelectric alarms are generally deemed to be more effective on smoldering fires. The State of Ohio (since, January, 2016) now require the installation of the photoelectric style alarms (typically denoted by the "P" on the packaging). However, do not "opt" for dual-tech units (ionization and photo-electric unit combined in one package). Because of the logic circuitry employed, these are fundamentally ionization style units and will not properly protect you in the "smoldering fire" scenario. Smoke detectors are essential in safeguarding human life in the unthinkable event of a fire. We recommend deploying smoke detectors in every bedroom and in the hallway outside each bedroom, and on every level of the home. Ideally, these detectors would be AC powered and interconnected but stand-alone battery operated units will suffice. Smoke detector should be mounted high on a wall (within 12" of the ceiling) or on the ceiling for best detection results. Be aware that while I've tested this detector for operation, pressing the "test" button really only tests the button and the alarm annunciator. I cannot be sure that this detector will function properly when subjected to a live fire and smoke conditions. The

Bedroom (Continued)

Smoke Detector: (continued)
best assurance for proper operation comes from the replacement of this device with a new factory unit.

10. ☐ ☒ ☐ ☐ ☐ Carbon Monoxide Detector

Second floor left front Bedroom

11. ☒ ☐ ☐ ☐ ☐ Closet: Double with French doors, Double with French doors Attic access scuttle located here; recommend weather-stripping scuttle hatch to prevent movement of conditioned (heated and cooled) air loss to attic or possible contamination of underlying space with contaminants from attic (dirt, possible mold or pollen spores and other particulate debris). Closet shelving, clothing and storage of personal possessions make access to this attic difficult. Access should be available for ready inspection and service as required.

12. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
13. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
14. ☒ ☐ ☐ ☐ ☐ Floor: Carpet is present. When carpet is present, an inspection of the substrate (subfloor) is not possible so the condition of the substrate (e.g., plywood, hardwood, OSB or concrete) cannot be assessed and as a result defects may be present that are not noted herein.
15. ☒ ☐ ☐ ☐ ☐ Doors: Hollow core paneled
16. ☒ ☐ ☐ ☐ ☐ Windows: Vinyl casement
17. ☒ ☐ ☐ ☐ ☐ Electrical: Ceiling light and three prong grounded outlet
18. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register
19. ☐ ☐ ☐ ☒ ☐ Smoke Detector: Hard wired with battery back up, Ionization style detector This is an ionization style detector that has been shown through laboratory tests to be less effective than the photoelectric type of smoke alarm. This is an older unit and it should be replaced with the newer photoelectric style unit for safety. There has been controversy over activation times of smoke alarms. Ionization alarms are generally deemed to be more effective on actively flaming type fires while photoelectric alarms are generally deemed to be more effective on smoldering fires. The State of Ohio (since, January, 2016) now require the installation of the photoelectric style alarms (typically denoted by the "P" on the packaging). However, do not "opt" for dual-tech units (ionization and photo-electric unit combined in one package). Because of the logic circuitry employed, these are fundamentally ionization style units and will not properly protect you in the "smoldering fire" scenario. Smoke detectors are essential in

Bedroom (Continued)

Smoke Detector: (continued)
safeguarding human life in the unthinkable event of a fire. We recommend deploying smoke detectors in every bedroom and in the hallway outside each bedroom, and on every level of the home. Ideally, these detectors would be AC powered and interconnected but stand-alone battery operated units will suffice. Smoke detector should be mounted high on a wall (within 12" of the ceiling) or on the ceiling for best detection results. Be aware that while I've tested this detector for operation, pressing the "test" button really only tests the button and the alarm annunciator. I cannot be sure that this detector will function properly when subjected to a live fire and smoke conditions. The best assurance for proper operation comes from the replacement of this device with a new factory unit.

20. ☐ ☒ ☐ ☐ ☐ Carbon Monoxide Detector

Second floor left rear Bedroom

21. ☒ ☐ ☐ ☐ ☐ Closet: Double with French doors
22. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
23. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
24. ☒ ☐ ☐ ☐ ☐ Floor: Carpet is present. When carpet is present, an inspection of the substrate (subfloor) is not possible so the condition of the substrate (e.g., plywood, hardwood, OSB or concrete) cannot be assessed and as a result defects may be present that are not noted herein.
25. ☐ ☐ ☐ ☒ ☐ Doors: Hollow core paneled Door is out of plumb and opens itself; a carpenter can remedy this defect

26. ☒ ☐ ☐ ☐ ☐ Windows: Vinyl casement
27. ☒ ☐ ☐ ☐ ☐ Electrical: Ceiling light and three prong grounded outlet
28. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register
29. ☐ ☐ ☐ ☒ ☐ Smoke Detector: Hard wired with battery back up, Ionization style detector This is an ionization style detector that has been shown through laboratory tests to be less effective than the photoelectric type of smoke alarm. This is an older unit and it should be replaced with the newer photoelectric style unit for safety. There has been controversy over activation times of smoke alarms. Ionization alarms are generally deemed to be more effective on actively flaming type fires while photoelectric alarms are generally deemed to be more effective on smoldering

Bedroom (Continued)

Smoke Detector: (continued)

fires. The State of Ohio (since, January, 2016) now require the installation of the photoelectric style alarms (typically denoted by the "P" on the packaging). However, do not "opt" for dual-tech units (ionization and photo-electric unit combined in one package). Because of the logic circuitry employed, these are fundamentally ionization style units and will not properly protect you in the "smoldering fire" scenario. Smoke detectors are essential in safeguarding human life in the unthinkable event of a fire. We recommend deploying smoke detectors in every bedroom and in the hallway outside each bedroom, and on every level of the home. Ideally, these detectors would be AC powered and interconnected but stand-alone battery operated units will suffice. Smoke detector should be mounted high on a wall (within 12" of the ceiling) or on the ceiling for best detection results. Be aware that while I've tested this detector for operation, pressing the "test" button really only tests the button and the alarm annunciator. I cannot be sure that this detector will function properly when subjected to a live fire and smoke conditions. The best assurance for proper operation comes from the replacement of this device with a new factory unit.

30. ☐ ☒ ☐ ☐ ☐ Carbon Monoxide Detector

Laundry Room/Area

We recommend the use of braided stainless steel laundry hoses (as opposed to black rubber units) for the washing machine for they are more burst resistant.

The clothes dryer should always be vented using rigid aluminum piping without screw penetrations. As a lesser alternate, flexible aluminum duct may be used. Do not use plastic flexible duct (it has been known to catch fire)! The dryer duct should always be as short as possible and should be inspected and cleaned periodically.

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A NP NI M D

Laundry Room/Area (Continued)

First Floor Laundry Room/Area

1. ☐ ☒ ☐ ☐ ☐ Closet:
2. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
3. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
4. ☒ ☐ ☐ ☐ ☐ Floor: Ceramic or porcelain tile
5. ☒ ☐ ☐ ☐ ☐ Doors: Hollow core paneled
6. ☒ ☐ ☐ ☐ ☐ Windows: Vinyl casement
7. ☒ ☐ ☐ ☐ ☐ Electrical: 120 VAC GFCI, Ceiling light
8. ☐ ☒ ☐ ☐ ☐ Smoke Detector:
9. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register
10. ☒ ☐ ☐ ☐ ☐ Laundry Tub: PVC
11. ☐ ☐ ☒ ☐ ☐ Clothes washer Samsung At the request of the client (buyer) or seller, this appliance was not inspected or evaluated for operation or performance as it is not included in the real estate transaction. Washing machines installed on floors above finished spaces below should be installed in containment pans to capture water from minor leaks before floor and underlying ceiling damage is created. Suggest installing containment pan on this washer.

12. ☐ ☐ ☒ ☐ ☐ Clothes Dryer Samsung At the request of the client (buyer) or seller, this appliance was not inspected or evaluated for operation or performance as it is not included in the real estate transaction.
13. ☒ ☐ ☐ ☐ ☐ Laundry Tub Drain: PVC "J" trap to wall
14. ☒ ☐ ☐ ☐ ☐ Washer Hose Bib and Hoses: Washer box with anti-hammer arrestors
15. Anti-hammer arrestors present? ◉ Yes ○ No Anti-hammer arrestors are now required for new installations but are suggested to reduce water hammer on pipes with solenoid closure on washing machines
16. ☒ ☐ ☐ ☐ ☐ Washer and Dryer Electrical: 120 vac GFCI, 240 VAC Dryer Outlet Dryer outlet is old-standard 3 prong unit./ New dryers are equipped with 4 prong "pigtails" (what the wire on the dryer is called). New dryers will require conversion of this outlet from 3 prong to 4 prong (it adds a ground wire).

17. ☒ ☐ ☐ ☐ ☐ Dryer Vent: Metal flex The dryer vent is occluded with lint and the damper door is not operational. This is a fire safety hazard and proper cleaning is strongly recommended.

18. ☐ ☒ ☐ ☐ ☐ Dryer Gas Line:
19. ☒ ☐ ☐ ☐ ☐ Washer Drain: Washer box in wall
20. ☐ ☒ ☐ ☐ ☐ Floor Drain:

Laundry Room/Area (Continued)

21. Other Observations:

Living Space

Carbon monoxide and smoke detectors should be installed on every level of the home, in every bedroom and in major gathering areas like family rooms.

NOTE: All definitions listed below refer to the property or item listed as inspected on this report at the time of inspection

A	Acceptable	Functional with no obvious signs of defect. It is carrying out the design purpose or intended operation of an item, part, system or component.
NP	Not Present	Item not present or not found.
NI	Not Inspected	Item was unable to be inspected for safety reasons or due to lack of power, inaccessible, or disconnected at time of inspection.
M	Marginal	Item is not fully functional and requires repair or servicing from a qualified (or licensed) professional. Item may be considered to present a minor safety hazard.
D	Defective	Item needs immediate repair or replacement. It is unable to perform its intended function, shows evidence of prior damage, or is considered to be a safety hazard.

	A	NP	NI	M	D	
Basement recreation room Living Space						
1.	☐	☒	☐	☐	☐	Closet:
2.	☒	☐	☐	☐	☐	Ceiling: 2x2 panels suspended ceiling
3.	☒	☐	☐	☐	☐	Walls: Painted plaster/sheetrock
4.	☒	☐	☐	☐	☐	Floor: Carpet is present. When carpet is present, an inspection of the substrate (subfloor) is not possible so the condition of the substrate (e.g., plywood, hardwood, OSB or concrete) cannot be assessed and as a result defects may be present that are not noted herein.
5.	☒	☐	☐	☐	☐	Doors: Vinyl slider with lite and fixed side lite
6.	☒	☐	☐	☐	☐	Windows: Vinyl casement, Glass block with and/or without vents, Fixed thermopane
7.	☒	☐	☐	☐	☐	Electrical: Recessed lights and three prong grounded outlets.
8.	☒	☐	☐	☐	☐	HVAC Source: Ceiling diffuser
9.	☐	☒	☐	☐	☐	Smoke Detector:
10.	☐	☒	☐	☐	☐	Carbon Monoxide Detector
Living Room Living Space						
11.	☐	☒	☐	☐	☐	Closet:
12.	☒	☐	☐	☐	☐	Ceiling: Textured plaster/sheetrock
13.	☒	☐	☐	☐	☐	Walls: Painted plaster/sheetrock
14.	☒	☐	☐	☐	☐	Floor: Engineered flooring
15.	☒	☐	☐	☐	☐	Doors: Vinyl slider with lite and fixed side lite
16.	☒	☐	☐	☐	☐	Windows: Clerestory thermopane, Fixed thermopane, Vinyl casement

Living Space (Continued)

17. ☒ ☐ ☐ ☐ ☐ Electrical: Recessed lights and three prong grounded outlets., Ceiling fan Switch serves no identifiable purpose. Suggest an inquiry with homeowner (seller) to identify purpose.

18. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register

19. ☐ ☐ ☐ ☒ ☐ Smoke Detector: Hard wired with battery back up, Ionization style detector This is an ionization style detector that has been shown through laboratory tests to be less effective than the photoelectric type of smoke alarm. This is an older unit and it should be replaced with the newer photoelectric style unit for safety. There has been controversy over activation times of smoke alarms. Ionization alarms are generally deemed to be more effective on actively flaming type fires while photoelectric alarms are generally deemed to be more effective on smoldering fires. The State of Ohio (since, January, 2016) now require the installation of the photoelectric style alarms (typically denoted by the "P" on the packaging). However, do not "opt" for dual-tech units (ionization and photo-electric unit combined in one package). Because of the logic circuitry employed, these are fundamentally ionization style units and will not properly protect you in the "smoldering fire" scenario. Smoke detectors are essential in safeguarding human life in the unthinkable event of a fire. We recommend deploying smoke detectors in every bedroom and in the hallway outside each bedroom, and on every level of the home. Ideally, these detectors would be AC powered and interconnected but stand-alone battery operated units will suffice. Smoke detector should be mounted high on a wall (within 12" of the ceiling) or on the ceiling for best detection results. Be aware that while I've tested this detector for operation, pressing the "test" button really only tests the button and the alarm annunciator. I cannot be sure that this detector will function properly when subjected to a live fire and smoke conditions. The best assurance for proper operation comes from the replacement of this device with a new factory unit. It is recommended by firefighters that you mount smoke detectors high on the wall, or on the ceiling away from windows and exterior doors. (This is not the case for carbon monoxide alarms) Smoke fills up a room from the ceiling down, so having the detectors high should alert you early on. It is also recommended that detectors be placed at least 4" from the wall when installed on the ceiling, and 4" from the ceiling for wall installation.

Living Space (Continued)

Smoke Detector: (continued)

Garage entry hallway Living Space

20. ☒ ☐ ☐ ☐ ☐ Closet: Double with sliding doors
21. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
22. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
23. ☒ ☐ ☐ ☐ ☐ Floor: Ceramic or porcelain tile
24. ☒ ☐ ☐ ☐ ☐ Doors: Garage entry door [metal clad fire rated]
25. ☐ ☒ ☐ ☐ ☐ Windows:
26. ☒ ☐ ☐ ☐ ☐ Electrical: Ceiling light and three prong grounded outlet
27. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register
28. ☐ ☒ ☐ ☐ ☐ Smoke Detector:

Dining Room Living Space

29. ☐ ☒ ☐ ☐ ☐ Closet:
30. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
31. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
32. ☒ ☐ ☐ ☐ ☐ Floor: Engineered flooring
33. ☐ ☒ ☐ ☐ ☐ Doors:
34. ☒ ☐ ☐ ☐ ☐ Windows: Fixed thermopane, Vinyl casement
35. ☒ ☐ ☐ ☐ ☐ Electrical: Three prong (grounded outlets), Pendant lights
36. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register
37. ☐ ☒ ☐ ☐ ☐ Smoke Detector:

First floor office Living Space

38. ☐ ☒ ☐ ☐ ☐ Closet:
39. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
40. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
41. ☒ ☐ ☐ ☐ ☐ Floor: Carpet is present. When carpet is present, an inspection of the substrate (subfloor) is not possible so the condition of the substrate (e.g., plywood, hardwood, OSB or concrete) cannot be assessed and as a result defects may be present that are not noted herein.

Living Space (Continued)

42. ☐ ☐ ☐ ☒ ☐ Doors: French doors with lites Ball detent not aligned with strike plate preventing proper functioning of door to remain closed, Glass in door may not be safety glass (no identifying markings could be located), as is required by contemporary standards, and may shard when broken possibly causing personal injury. Suggest installation of security film on glass or replacement with safety glazing.

43. ☐ ☐ ☐ ☐ ☒ Windows: Fixed thermopane, Vinyl casement Casement window lock malfunctioning and prevents window closure. Suggest service by a qualified glazier for safety.

44. ☒ ☐ ☐ ☐ ☐ Electrical: Recessed lights and three prong grounded outlets., Ceiling light
45. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register
46. ☐ ☒ ☐ ☐ ☐ Smoke Detector:

Second floor hallway Living Space

47. ☐ ☒ ☐ ☐ ☐ Closet:
48. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
49. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
50. ☒ ☐ ☐ ☐ ☐ Floor: Carpet is present. When carpet is present, an inspection of the substrate (subfloor) is not possible so the condition of the substrate (e.g., plywood, hardwood, OSB or concrete) cannot be assessed and as a result defects may be present that are not noted herein.
51. ☐ ☒ ☐ ☐ ☐ Doors:
52. ☐ ☒ ☐ ☐ ☐ Windows:
53. ☒ ☐ ☐ ☐ ☐ Electrical: Recessed lights and three prong grounded outlets.
54. ☐ ☒ ☐ ☐ ☐ HVAC Source:
55. ☐ ☐ ☐ ☒ ☐ Smoke Detector: Hard wired with battery back up, Ionization style detector This is an ionization style detector that has been shown through laboratory tests to be less effective than the photoelectric type of smoke alarm. This is an older unit and it should be replaced with the newer photoelectric style unit for safety. There has been controversy over activation times of smoke alarms. Ionization alarms are generally deemed to be more effective on actively flaming type fires while photoelectric alarms are generally deemed to be more effective on smoldering fires. The State of Ohio (since, January, 2016) now require the installation of the photoelectric style alarms (typically denoted by the "P" on

Living Space (Continued)

Smoke Detector: (continued)
the packaging). However, do not "opt" for dual-tech units (ionization and photo-electric unit combined in one package). Because of the logic circuitry employed, these are fundamentally ionization style units and will not properly protect you in the "smoldering fire" scenario. Smoke detectors are essential in safeguarding human life in the unthinkable event of a fire. We recommend deploying smoke detectors in every bedroom and in the hallway outside each bedroom, and on every level of the home. Ideally, these detectors would be AC powered and interconnected but stand-alone battery operated units will suffice. Smoke detector should be mounted high on a wall (within 12" of the ceiling) or on the ceiling for best detection results. Be aware that while I've tested this detector for operation, pressing the "test" button really only tests the button and the alarm annunciator. I cannot be sure that this detector will function properly when subjected to a live fire and smoke conditions. The best assurance for proper operation comes from the replacement of this device with a new factory unit.

Second floor loft Living Space

56. ☐ ☒ ☐ ☐ ☐ Closet:
57. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
58. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
59. ☒ ☐ ☐ ☐ ☐ Floor: Carpet is present. When carpet is present, an inspection of the substrate (subfloor) is not possible so the condition of the substrate (e.g., plywood, hardwood, OSB or concrete) cannot be assessed and as a result defects may be present that are not noted herein.
60. ☐ ☒ ☐ ☐ ☐ Doors:
61. ☒ ☐ ☐ ☐ ☐ Windows: Vinyl casement
62. ☒ ☐ ☐ ☐ ☐ Electrical: Ceiling light and three prong grounded outlet
63. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register
64. ☐ ☒ ☐ ☐ ☐ Smoke Detector:

Second floor sitting room Living Space

65. ☐ ☒ ☐ ☐ ☐ Closet:
66. ☒ ☐ ☐ ☐ ☐ Ceiling: Textured plaster/sheetrock
67. ☒ ☐ ☐ ☐ ☐ Walls: Painted plaster/sheetrock
68. ☒ ☐ ☐ ☐ ☐ Floor: Carpet is present. When carpet is present, an inspection of the substrate (subfloor) is not possible so the condition of the substrate (e.g., plywood, hardwood, OSB or concrete) cannot be assessed and as a result defects may be present that are not noted herein.
69. ☐ ☐ ☐ ☒ ☐ Doors: Hollow core paneled Door requires trimming/adjustment; door does not close/open properly
70. ☐ ☒ ☐ ☐ ☐ Windows:
71. ☒ ☐ ☐ ☐ ☐ Electrical: Ceiling light and three prong grounded outlet

Living Space (Continued)

72. ☒ ☐ ☐ ☐ ☐ HVAC Source: Floor register
73. ☐ ☒ ☐ ☐ ☐ Smoke Detector:

Final Comments

We might suggest that you budget for the following future capital replacement items in no particular order (this list is not intended to be extensive nor fully inclusive and supplements recommendations made elsewhere in the report):

1) Roof and gutter system replacement (long-term)
2) Air conditioning equipment replacement (mid-term)
3) Additional insulation for energy efficiency

We further suggest that you secure copies of building permits from the seller or local building department for at least the following areas (if these permits are not available, it may suggest that the work was not subject to municipal building inspector oversight and may not comport with local or national regulations:

1) Electrical
2) Plumbing
3) HVAC
4) Roofing
5) General trades remodeling
6) Certificate of Occupancy

We further suggest that the buyer, where possible, ask pertinent questions of the seller to gain as much insight to the prospective home as possible. We suggest inquiring about the following issues:

1) Secure, if available, original drawings for the property.
2) Definition of property lines (will likely require property survey)
3) Prior to closing, secure names of any and all recent contractors (within the last five years)and get permit copies for all work performed within last five years (permit copies can also be obtained from the municipal building department), request instruction manuals for all appliances and system equipment, request warranty statements for all new appliances including kitchen appliances, and remodeling projects including water heater replacement and general remodeling work.

Fred Freer, President
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A Four Square Restorations Company
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440.446.8000
440.446.8075 (fax)
440.668.2400 (cell)

Final Comments (Continued)

ASHI Certified Inspector (ACI)
Certified Remodeler (NARI)
Historic House Specialist (BTC)
Housing Inspector (FEMA/PaRR)
Certified Graduate Builder (NAHB)
Certified Green Professional (NAHB)
Certified Graduate Remodeler (NAHB)
Lead Safe Renovator (ODH-LR-012226)
EPA Certified Renovator NAT-37670-1
Certified Professional Remodeler (PRO)
Certified Master Inspector (InterNACHI)
Engineering Foundation Certifications
FHA/VA/HUD Approved Home Inspector (H895)
Certified Aging-In-Place Specialist (NAHB)
Certified Kitchen and Bath Installer (NKBA)
Licensed Pest (WDO) Inspector (ODA) #117715
Licensed Radon Analyst (NEHA/NRPP) RT-527
Certified Level III Thermographer (I.I. #9927)
Certified Real Estate Inspector [CRI] - (NAHI)
Mold Inspection Certified Professional (IIAQC)
Indoor Air Quality Certified Professional (IIAQC)
Asbestos Hazard Evaluation Specialist (ODH - ES-35722)
Certified Mold Inspector/Certified Mold Remediator (NAMP)
American Society of Home Inspectors - Inspector # 250439
National Association of Home Inspectors - Member #18976
International Association of Electrical Inspectors # 7065793

Marginal Summary

This summary is not the entire report. The complete report may include additional information of concern to the client. It is recommended that the client read the complete report.

Lots and Grounds

1. Deck: Treated wood (likely copper chromated arsenate (also known as Copper Chromated Arsenate) a product that was permitted for outdoor structures and decks until 2004. Manufacturers submitted requests to the EPA to voluntarily cancel most residential uses effective December 31, 2003. Supply chains likely contained CCA treated products for more than several of the subsequent years following 2004. Deck ledger boards are a critical component in the attachment of this deck to the home. Failure of the ledger translates to failure of the entire deck. Proper attachment of this board to the house with proper fasteners at the proper intervals is required to assure deck safety. A thorough inspection of this ledger and its points of attachment was not possible in this inspection. You are cautioned to watch for any signs of movement of the deck along the house wall, any signs of deck settlement along the house wall or any signs of deck flexing near the house and if discovered, have a qualified decking contractor thoroughly examine the ledger and deck structure. Deck ledger boards and other points of mechanical connection to the structure of the house rely on a positive, direct attachment without other compressible materials in between the two structural elements (ledger and house foundation). Attachment through the siding is an improper attachment method and risks a long-term compromise of the integrity of the larger deck structure and its connection to the house. We recommend monitoring the deck for changes in elevation, pitch or attachment to the house. If changes occur, we recommend that you contact a qualified licensed general contractor decking contractor for an investigation and repair recommendation. Ledger flashing not present. Ledger flashing is designed to carry gravity-fed water out and away from rear-face of ledger board. Failure to properly divert this water may lead to premature failure of the ledger, deterioration of the ledger fasteners and possible fungal growth and structural decay of the band joist and/or sill plate and associated components. No "Hurricane Ties" have been installed as required. Where posts and beam or girder construction is used to support floor framing, positive connections shall be provided to ensure against uplift and lateral displacement. Suggest a qualified deck contractor install these required components. The ledger, as noted, is a critical component in the support of the deck and it must be properly fastened to the house structure. The type and location of fasteners are essential to ensure sound structural attachment of the deck to the home. Bolts or lag screws of ½-inch diameter are the usual minimum size. Hot-dipped galvanized is the usual minimum coating material for all hardware including nails, screws and joist hangers. Stainless steel may be required in severe-exposure areas such as near salt water. The spacing of fasteners depends on the length of the deck joists, whether attachment is to a dimension-lumber band or to a rim board, and on the fastener type (bolt or lag screw). Typical fastener spacing for deck ledgers attached to engineered-rim boards is between 9-12 inches on center and between 11-24 inches for deck ledgers attached to dimension-lumber band boards. The more distant spacing

Marginal Summary (Continued)

Deck: (continued)

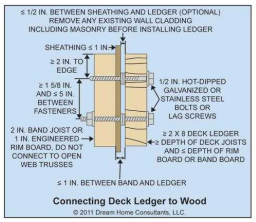
applies to shorter deck joists and the closer spacing to longer deck joists. Lag screws need closer spacing than bolts. The fasteners used for this deck installation do not comport with contemporary safety requirements. See the attached diagrams for additional detail. Contemporary deck construction requirements require two (or four) alternative lateral force connectors to connect the deck structure to the house structure to prevent lateral loading of the deck and rotation of the ledger. Simpson Strong-Tie makes two devices that are approved for new installations and retrofit applications. The DTT2Z is a deck tension tie that, when used in a pair, meets the 3,000 pound lateral load specification. The second alternative where four units would be required is identified as the DTT1Z. Two or four (depending on connector) connectors should be retrofitted to this deck for safety. As an alternative, a letter signed and stamped by a licensed structural engineer certifying the structural integrity of this deck, the deck ledger and deck ledger connection may provide a measure of legal protection in the event of a deck failure. A qualified deck contractor will be familiar with the American Wood Council's Design for Code Acceptance DCA-6 document which, along with the International Residence Code, details installation requirements and specifications for these lateral load connectors. Sample locations shown only. The American Wood Council (see http://www.awc.org/codes-standards/publications/dca6) has long published. and revises as appropriate, the document entitled DCA-6 and known as the "Prescriptive Residential Deck Construction Guide." While this guide is technical in nature, by design, it is also a ready reference for a homeowner wishing to better understand how their deck should be constructed. You may also wish to consult Simpson Strong-Tie (https://www.strongtie.com/resources/literature/deck-connection-fastening-guide) for supplemental information concerning the hardware used for proper deck construction. However, with all of this said, this deck does not, at the time of the inspection, evidence structurally shifting or ledger detachment. Nonetheless, the long-term viability, performance and safety of this deck structure may require repairs as outlined above. I suggest monitoring the deck at the house side for evidence of change. If such change occurs, I recommend that you consult a licensed structural engineer for an evaluation.

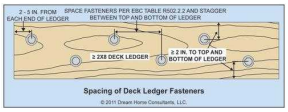



Lots and Grounds (Continued)

Deck: (continued)







2. Vegetation: Coniferous trees, Deciduous trees, Shrubs, Bushes and large plantings Trees planted too close to structure, removal may be required

3. Window Wells: No window well(s) present Suggest installing window well surround(s) to protect window framing from surrounding earth.

Exterior Surface and Components

4. Trim: Aluminum coil wrap Evidence of water entry within or behind trim. Evidence of ferrous metal (rust stains). Suggest a qualified siding contractor investigate source of water entry and estimate repairs.


5. Flashings: Window and door head flashing Head flashings are not present at window and door penetrations through the exterior siding (sample locations shown only). Head flashings are used to direct water away from openings such as windows and doors. Head flashings should be installed with a positive slope to the exterior. The cladding above the head flashing should never rest on the flashing as this leads to problems with the flashing being bent in the wrong direction and sloped back towards the building. Head flashings should extend laterally past the opening on either side. This flashing is particularly important when the window or door is not protected by an overhead roof, soffit

Marginal Summary (Continued)

Flashings: (continued)
or cantilevered projection. Sample locations shown only. While head flashings can be installed after the fact (with siding removal), it is generally not recommended unless visual or other evidence suggests water entry to the interior of the home around the window/door.



Roof System

6. Downspouts: Aluminum Downspout is crushed (compressed) and may limit flow

Garage/Carport

7. Built-in Garage Exterior Surface: Vinyl siding - Water Resistive Barrier (WRB) present Soffit trim suffered vehicular damage as shown.

8. Built-in Garage Leader/Extensions: PVC Receiver damaged at PVC piping: suggest installation of proper receiver to prevent debris entry to piping.

Electrical System

9. Bonding/Grounding Ground rod, Derived ground and proper bonding to water pipe within 5' of point of entry Ground rod (for electrical lightening safety) is not visible and is required to be visible and accessible to permit verification and service, if required, at the point of connection. Suggest a licensed electrician verify the presence of a properly installed ground rod. Bonding conductor missing from HVAC vibration damper assembly. An electrician can readily install this bonding jumper for electrical safety.

Electrical System (Continued)

Bonding/Grounding (continued)



10. Smoke Detectors: Hard wired with battery back up Hard wired smoke detectors are present in this home but are not labeled in this panel. The smoke detectors are presumably associated with some other circuit but without labeling, this circuit could be "turned off" resulting in the loss of power to the life-saving smoke detectors. Smoke detectors should be served by a dedicated circuit breaker and, based on contemporary standards, this breaker should be an Arc Fault type breaker. Hard wired smoke detectors are present in this home but are not served by a separate, identified breaker or AFCI device as shown. The smoke detectors are associated with another circuit, and should this circuit encounter a fault that would trip the breaker/AFCI device, the result would be the loss of power to the life-saving smoke detectors (a condition that could possibly remain undetected for a period of time). Smoke detectors should be served by a dedicated circuit breaker and, based on contemporary standards, this breaker should be an Arc Fault type breaker (AFCI). Arguably, smoke detectors (alarms) could share a known circuit like the basement lights, for example, so that if the circuit is tripped, it will be readily identified.
11. Basement utility room Electric Panel Breakers: Copper This home is equipped with a Radon mitigation system. However, no breaker in the panel identifies the power source for this system. The risk is that this system might inadvertently be disconnected: a real health and safety hazard! Suggest the installing Radon system contractor (or a licensed electrician) identify the branch circuit and breaker for this system and properly label the breaker. This home is equipped with a Home Security System. However, no breaker in the panel identifies the power source for this system. The risk is that this system might inadvertently be disconnected: a real health and safety hazard! Suggest the installing Security System contractor identify the branch circuit and breaker for this system and properly label the breaker (or install a new, dedicated breaker or AFCI).

Basement Area (unfinished basement)

12. Partial basement Basement Ceiling: Exposed framing This basement has holes through the ceiling to and through the floor above. Some municipalities will not permit basement ceiling voids (holes) as these voids may act as chimneys in the unlikely event of a fire. Suggest you check with your municipal building department to determine whether these voids (holes) are acceptable and require sealing (repair). In any case, these voids pose an

Marginal Summary (Continued)

Ceiling: (continued)
opportunity for the loss of conditioned (heated) air to the space above. Suggest sealing these voids (holes) for safety and energy efficiency.

13. Partial basement Basement Walls: Concrete block units (CMU) Elevated moisture present at one or more locations as identified with "red dots". Dots indicate areas of higher relative moisture and represent samples only. Efflorescence is present. Efflorescence is the deposition of a soluble salt from the masonry. The salt itself is not harmful but is a very strong indicator of the presence of moisture in and through the wall. When water is present on the exterior face of the wall, and when moisture is pressure driven through the wall, the moisture carries with it the soluble salts . When the moisture dries on the interior face of the wall, the salts are left behind attached to the interior wall and provide the visible evidence of the exterior moisture present at an earlier time. Evidence of erosion on exterior all may be source of interior basement wall moisture. Suggest a licensed plumber investigate PVC storm drain piping with a camera to verify integrity of piping and to identify source (cause) of erosion.



14. Partial basement Basement Moisture Location: Basement wall at one or more locations as identified. See wall notes above.

Attic (unfinished top level spaces)

15. Attic over second floor Attic Attic access: Scuttle in bedroom closet Access to the attic was limited by the presence of closet shelving (suggest removal or reconfiguration to permit ready attic access), personal possessions and storage.

Air Conditioning System

16. Rear yard AC System A/C System Operation: System functioned but provided limited cooling on second floor Ideally, we'd like to see a supply/return temperature differential of approximately 15 degrees. This system did not deliver that differential suggesting that the system may require service to maximize the air conditioning system performance. The air conditioning system produced reasonable supply and return temperature differentials but the second floor is measurably warmer than the first floor after several hours of AC operation. Recommend a licensed HVAC contractor evaluate the air conditioning system and

Marginal Summary (Continued)

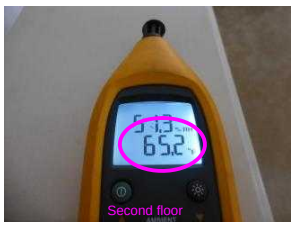
A/C System Operation: (continued)
possibly re-balance the system to drive more air to second floor and less air to first floor to satisfy the thermostat.

17. Rear yard AC System Temperature Differential (if tested): 10-16 degrees The nominal supply temperature from a properly functioning air conditioning unit is typically about 55 degrees when measured closet to the evaporation coil. Measurements made from registers downstream (room registers for example and particularly registers located farther from the furnace as on the second or third floors) of the coil (which is located in the plenum of the furnace) will be slightly warmer particularly in the early stages of cooling. Supply temperatures notably higher than 55 degrees suggest that the air conditioning system is not functioning at capacity and repair or replacement should be expected. The air conditioning performed adequately on the first floor but the second floor was measurably warmer than the first. As noted elsewhere, the system may simply need to be re-balanced to drive more cool to the second floor. Part of the explanation for the warm second floor may be explained by the open floor plan that allows the first floor cool air to "push" the warm air to the second floor. Again, a system balancing may compensate for this cooling concern and/or the system may require the service of a licensed HVAC technician.









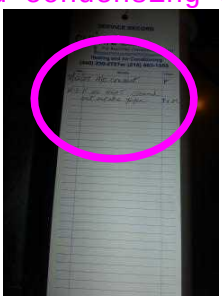
Bathroom

18. First floor master bathroom Bathroom Ventilation: Bath exhaust fan/light unit Light inoperative at time of inspection. Bath exhaust fan termination could not be determined. This bath fan may be vented to the sidewall or ceiling only or may be vented to an attic space. However, bath fans should universally be vented to the exterior. One possible exception might be for a half-bath. In a half-bath, the exhaust fan is used for odor management and not moisture management and venting to a sidewall or ceiling is less concerning. Full bathrooms, particularly with showers, should always be vented to the exterior through a dampered soffit, sidewall or roof cap.

Marginal Summary (Continued)

Heating System

19. Basement utility room Heating System Heating System Operation: Adequate at time of inspection Plug to seal the combustion compartment is missing. Suggest a licensed HVAC technician install a replacement plug to improve (correct) the energy efficiency of this furnace. Routine and recent furnace/boiler service by a licensed HVAC contactor should be so indicated by the presence of such a service sticker. No such service sticker is present suggesting that this furnace/boiler has not enjoyed recent or routine inspections by licensed HVAC technicians. Recommend regular inspections of furnace unit and heat exchanger (for carbon monoxide emissions), I strongly recommend that you engage a licensed HVAC contractor to perform a baseline (initial) service inspection on the furnace and air conditioning equipment (for the air conditioning equipment when the season permits with weather at or above 60 degrees) as appropriate to assure complete functionality and safety. This licensed HVAC service inspection should involve an evaluation of the heat exchanger (not inspected and beyond the scope of a traditional general home inspection) as well as the air conditioning evaporator coil. This would be a good time to have the evaporator and condensing coils professionally cleaned as well.

20. Basement utility room Heating System Flue Connector Pipe: PVC piping for combustion exhaust and PVC piping for combustion air PVC piping for heating (furnace) has been damaged and proper piping should be replaced by a licensed HVAC technician.

Bedroom

21. First floor master bedroom Bedroom Smoke Detector: Hard wired with battery back up, Ionization style detector This is an ionization style detector that has been shown through laboratory tests to be less effective than the photoelectric type of smoke alarm. This is an older unit and it should be replaced with the newer photoelectric style unit for safety. There has been controversy over activation times of smoke alarms. Ionization alarms are generally deemed to be more effective on actively flaming type fires while photoelectric alarms are generally deemed to be more effective on smoldering fires. The State of Ohio (since, January, 2016) now require the installation of the photoelectric style alarms

Marginal Summary (Continued)

Smoke Detector: (continued)
(typically denoted by the "P" on the packaging). However, do not "opt" for dual-tech units (ionization and photo-electric unit combined in one package). Because of the logic circuitry employed, these are fundamentally ionization style units and will not properly protect you in the "smoldering fire" scenario. Smoke detectors are essential in safeguarding human life in the unthinkable event of a fire. We recommend deploying smoke detectors in every bedroom and in the hallway outside each bedroom, and on every level of the home. Ideally, these detectors would be AC powered and interconnected but stand-alone battery operated units will suffice. Smoke detector should be mounted high on a wall (within 12" of the ceiling) or on the ceiling for best detection results. Be aware that while I've tested this detector for operation, pressing the "test" button really only tests the button and the alarm annunciator. I cannot be sure that this detector will function properly when subjected to a live fire and smoke conditions. The best assurance for proper operation comes from the replacement of this device with a new factory unit.

22. Second floor left front Bedroom Smoke Detector: Hard wired with battery back up, Ionization style detector This is an ionization style detector that has been shown through laboratory tests to be less effective than the photoelectric type of smoke alarm. This is an older unit and it should be replaced with the newer photoelectric style unit for safety. There has been controversy over activation times of smoke alarms. Ionization alarms are generally deemed to be more effective on actively flaming type fires while photoelectric alarms are generally deemed to be more effective on smoldering fires. The State of Ohio (since, January, 2016) now require the installation of the photoelectric style alarms (typically denoted by the "P" on the packaging). However, do not "opt" for dual-tech units (ionization and photo-electric unit combined in one package). Because of the logic circuitry employed, these are fundamentally ionization style units and will not properly protect you in the "smoldering fire" scenario. Smoke detectors are essential in safeguarding human life in the unthinkable event of a fire. We recommend deploying smoke detectors in every bedroom and in the hallway outside each bedroom, and on every level of the home. Ideally, these detectors would be AC powered and interconnected but stand-alone battery operated units will suffice. Smoke detector should be mounted high on a wall (within 12" of the ceiling) or on the ceiling for best detection results. Be aware that while I've tested this detector for operation, pressing the "test" button really only tests the button and the alarm annunciator. I cannot be sure that this detector will function properly when subjected to a live fire and smoke conditions. The best assurance for proper operation comes from the replacement of this device with a new

Marginal Summary (Continued)

Smoke Detector: (continued)
factory unit.

23. Second floor left rear Bedroom Doors: Hollow core paneled Door is out of plumb and opens itself; a carpenter can remedy this defect

24. Second floor left rear Bedroom Smoke Detector: Hard wired with battery back up, Ionization style detector This is an ionization style detector that has been shown through laboratory tests to be less effective than the photoelectric type of smoke alarm. This is an older unit and it should be replaced with the newer photoelectric style unit for safety. There has been controversy over activation times of smoke alarms. Ionization alarms are generally deemed to be more effective on actively flaming type fires while photoelectric alarms are generally deemed to be more effective on smoldering fires. The State of Ohio (since, January, 2016) now require the installation of the photoelectric style alarms (typically denoted by the "P" on the packaging). However, do not "opt" for dual-tech units (ionization and photo-electric unit combined in one package). Because of the logic circuitry employed, these are fundamentally ionization style units and will not properly protect you in the "smoldering fire" scenario. Smoke detectors are essential in safeguarding human life in the unthinkable event of a fire. We recommend deploying smoke detectors in every bedroom and in the hallway outside each bedroom, and on every level of the home. Ideally, these detectors would be AC powered and interconnected but stand-alone battery operated units will suffice. Smoke detector should be mounted high on a wall (within 12" of the ceiling) or on the ceiling for best detection results. Be aware that while I've tested this detector for operation, pressing the "test" button really only tests the button and the alarm annunciator. I cannot be sure that this detector will function properly when subjected to a live fire and smoke conditions. The best assurance for proper operation comes from the replacement of this device with a new factory unit.

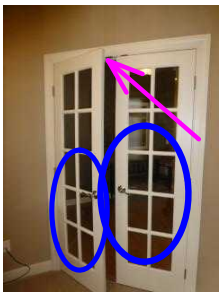
Living Space

25. Living Room Living Space Smoke Detector: Hard wired with battery back up, Ionization style detector This is an ionization style detector that has been shown through laboratory tests to be less effective than the photoelectric type of smoke alarm. This is an older unit and it should be replaced with the newer photoelectric style unit for safety. There has been controversy over activation times of smoke alarms. Ionization alarms are generally deemed to be more effective on actively flaming type fires while photoelectric alarms are

Marginal Summary (Continued)

Smoke Detector: (continued)
generally deemed to be more effective on smoldering fires. The State of Ohio (since, January, 2016) now require the installation of the photoelectric style alarms (typically denoted by the "P" on the packaging). However, do not "opt" for dual-tech units (ionization and photo-electric unit combined in one package). Because of the logic circuitry employed, these are fundamentally ionization style units and will not properly protect you in the "smoldering fire" scenario. Smoke detectors are essential in safeguarding human life in the unthinkable event of a fire. We recommend deploying smoke detectors in every bedroom and in the hallway outside each bedroom, and on every level of the home. Ideally, these detectors would be AC powered and interconnected but stand-alone battery operated units will suffice. Smoke detector should be mounted high on a wall (within 12" of the ceiling) or on the ceiling for best detection results. Be aware that while I've tested this detector for operation, pressing the "test" button really only tests the button and the alarm annunciator. I cannot be sure that this detector will function properly when subjected to a live fire and smoke conditions. The best assurance for proper operation comes from the replacement of this device with a new factory unit. It is recommended by firefighters that you mount smoke detectors high on the wall, or on the ceiling away from windows and exterior doors. (This is not the case for carbon monoxide alarms) Smoke fills up a room from the ceiling down, so having the detectors high should alert you early on. It is also recommended that detectors be placed at least 4" from the wall when installed on the ceiling, and 4" from the ceiling for wall installation.


26. First floor office Living Space Doors: French doors with lites Ball detent not aligned with strike plate preventing proper functioning of door to remain closed, Glass in door may not be safety glass (no identifying markings could be located), as is required by contemporary standards, and may shard when broken possibly causing personal injury. Suggest installation of security film on glass or replacement with safety glazing.



27. Second floor hallway Living Space Smoke Detector: Hard wired with battery back up, Ionization style detector This is an ionization style detector that has been shown through laboratory tests to be less effective than the photoelectric type of smoke alarm. This is an older unit and it should be replaced with the newer

Marginal Summary (Continued)

Smoke Detector: (continued)
photoelectric style unit for safety. There has been controversy over activation times of smoke alarms. Ionization alarms are generally deemed to be more effective on actively flaming type fires while photoelectric alarms are generally deemed to be more effective on smoldering fires. The State of Ohio (since, January, 2016) now require the installation of the photoelectric style alarms (typically denoted by the "P" on the packaging). However, do not "opt" for dual-tech units (ionization and photo-electric unit combined in one package). Because of the logic circuitry employed, these are fundamentally ionization style units and will not properly protect you in the "smoldering fire" scenario. Smoke detectors are essential in safeguarding human life in the unthinkable event of a fire. We recommend deploying smoke detectors in every bedroom and in the hallway outside each bedroom, and on every level of the home. Ideally, these detectors would be AC powered and interconnected but stand-alone battery operated units will suffice. Smoke detector should be mounted high on a wall (within 12" of the ceiling) or on the ceiling for best detection results. Be aware that while I've tested this detector for operation, pressing the "test" button really only tests the button and the alarm annunciator. I cannot be sure that this detector will function properly when subjected to a live fire and smoke conditions. The best assurance for proper operation comes from the replacement of this device with a new factory unit.

28. Second floor sitting room Living Space Doors: Hollow core paneled Door requires trimming/adjustment; door does not close/open properly

Defective Summary

This summary is not the entire report. The complete report may include additional information of concern to the client. It is recommended that the client read the complete report.

Garage/Carport

1. Built-in Garage Door Opener: Chamberlain Lift Master Auto-reverse not functioning on overhead door; this is a safety issue! Failure of this door to properly auto-reverse may result in personal injury or property damage. Suggest qualified overhead door technician evaluate and estimate repairs.

Basement Area (unfinished basement)

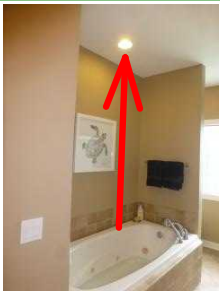
2. Partial basement Basement Smoke/Heat Detector: Hard wired with battery back up Detector missing; replacement strongly advised; life safety issue!

Attic (unfinished top level spaces)

3. Attic over second floor Attic Bathroom Fan Venting: Bath fans are vented to soffits Bath fans are vented to soffits; bath fan piping is not insulated; Bath fans should be vented through (approved for the application) roof, sidewall or soffit caps that have back-draft dampers. Piping (ducting) from fan to cap should be insulated to prevent condensation development and the total run length should be as short as practicable.

Bathroom

4. First floor master bathroom Bathroom Electrical: 120 Volt GFCI (Ground Fault Circuit Interrupted) outlet or protected outlet (GFCI protection may be located elsewhere in an upstream outlet or in the electrical panel) and a wall fixture., Recessed shower/tub light Exposed incandescent lamps (bulbs) are not permitted over bathtubs or showers. Fixtures installed over bathtubs or showers must be installed 8 feet or higher and/or rated for wet location with protected lamps. Fixtures over tubs/showers should be GFCI protected.



5. First floor master bathroom Bathroom Spa Tub/Surround: Acrylic water jetted tub Jetted tub failed to operate; Whirlpool tubs are inspected for limited operation to determine water fill, drain function, plumbing water distribution and motor operation only. This jetted tub has a pump and related equipment that may require periodic service. This equipment is contained within an enclosure that does not appear to provide a removable service cover access. The inability to access this important equipment will increase service costs when required and may be destructive as some demolition may be required to provide service.

Defective Summary (Continued)

Spa Tub/Surround: (continued)
Suggest that the seller identify for you the presence of a removable service panel or their method of prior equipment service.



6. Second floor guest bathroom Bathroom Ventilation: Bath exhaust fan/light unit Light inoperative at time of inspection. Bath exhaust fan termination could not be determined with precision for fan/ducting is buried in insulation. However, evidence suggests bath fan is vented to soffit. [Bath fans to soffit]Bathroom exhaust fans should be vented to exterior to prevent condensation, mold growth and potential structural damage to attic spaces and roofing surfaces. Bath fans can be vented through side walls, if the duct run is less than 15' or through the roof to a dampered roof or soffit cap (as would be necessary on a hip style roof). Bath fan appears to be vented to attic or soffit vent (no dampered roof or side wall cap could be located; recommend qualified contractor investigate and re-terminate bath exhaust fan to appropriate dampered cap (roof, soffit or sidewall).


Living Space

7. First floor office Living Space Windows: Fixed thermopane, Vinyl casement Casement window lock malfunctioning and prevents window closure. Suggest service by a qualified glazier for safety.